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(FILE 'HOME' ENTERED AT 11:10:24 ON 01 DEC 2006)

FILE 'EPFULL, FRFULL, GBFULL, PATDPAFULL, PCTFULL, RDISCLOSURE,
USPATFULL, USPAT2' ENTERED AT 11:10:49 ON 01 DEC 2006

E MEDRONIC MINIMED/PA
E MEDTRONIC MINIMED/PA

L1 458 S E4-E8
L2 4 S L1 AND THYMIDINE
E WALSH JOSEPH/IN
L3 103 S E3-8
L4 8 S L3 AND THYMIDINE

FILE 'CAPLUS' ENTERED AT 11:18:06 ON 01 DEC 2006

L5 1 S WO 2005058246/PN
SELECT L5 1 RN
L6 8517 S E1-E6

FILE 'REGISTRY' ENTERED AT 11:19:14 ON 01 DEC 2006

L7 1 S 15981-92-7/RN
SET NOTICE 1 DISPLAY
SET NOTICE LOGIN DISPLAY

FILE 'REGISTRY' ENTERED AT 11:20:50 ON 01 DEC 2006

L8 1 S 191474-13-2/RN
SET NOTICE 1 DISPLAY
SET NOTICE LOGIN DISPLAY

FILE 'REGISTRY' ENTERED AT 11:21:27 ON 01 DEC 2006

L9 1 S 287114-80-1/RN
SET NOTICE 1 DISPLAY
SET NOTICE LOGIN DISPLAY

FILE 'REGISTRY' ENTERED AT 11:23:19 ON 01 DEC 2006

L10 1 S 50-89-5/RN
SET NOTICE 1 DISPLAY
SET NOTICE LOGIN DISPLAY

FILE 'REGISTRY' ENTERED AT 11:23:43 ON 01 DEC 2006

L11 1 S 852689-54-4/RN
SET NOTICE 1 DISPLAY
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FILE 'REGISTRY' ENTERED AT 11:25:20 ON 01 DEC 2006

L12 1 S 852689-55-5/RN
SET NOTICE 1 DISPLAY
SET NOTICE LOGIN DISPLAY

FILE 'CAPLUS' ENTERED AT 11:25:42 ON 01 DEC 2006

L13 66 S L7 OR L8

=> d ibib abs hitstr 11-30

L13 ANSWER 11 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:97429 CAPLUS

DOCUMENT NUMBER: 138:137529

TITLE: Process for the preparation of 2'-3'-dideoxy-2',3'-didehydro-nucleosides

INVENTOR(S): Liotta, Dennis C.; Choi, Woo-Baeg

PATENT ASSIGNEE(S): Emory University, USA

SOURCE: PCT Int. Appl., 44 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

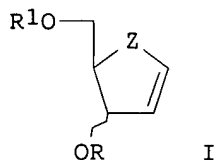
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003010179	A1	20030206	WO 2001-US23267	20010724
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.: US 2000-220373P P 20000724

OTHER SOURCE(S): MARPAT 138:137529

GI



AB The present invention is an efficient synthetic route to 2',3'-dideoxy-2',3'-didehydro-nucleosides, e.g. I, wherein Z is carbon, heteroatom; R is H, silyl, activating group with a metal to form an allyl complex; R1 is oxygen protecting group. This process utilizes metal mediated allyl chemical to achieve coupling of a heterocyclic base, including a purine, pyrimidine, or other heterocyclic or heteroaryl compound to a glycal to produce a nucleoside with high regio- and enantioselectivity. Thus, β -D-2',3'-dideoxy-2',3'-didehydro-5-fluorocytidine was prepared via regio- and enantioselective coupling of 5'-tert-butyldiphenylsilyl-3'-phenylurethane-glycal with nucleobase.

IT 15981-92-7P

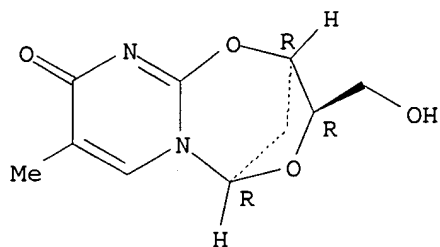
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(process for preparation of dideoxydidehydronucleosides via regio- and enantio-selective coupling of heterocyclic bases to glycals)

RN 15981-92-7 CAPLUS

CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one, 2,3-dihydro-3-(hydroxymethyl)-8-methyl-, (2R,3R,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 12 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:623850 CAPLUS

DOCUMENT NUMBER: 138:4774

TITLE: Synthesis of p-fluorodithioacids of phosphorus and their synthetic application

AUTHOR(S): Tworowska, Izabela; Dabkowski, Wojciech; Michalski, Jan

CORPORATE SOURCE: Centre of Molecular and Macromolecular Studies, Polish Academy of Sciences, Lodz, 90-363, Pol.

SOURCE: Phosphorus, Sulfur and Silicon and the Related Elements (2002), 177(6-7), 1855-1858
CODEN: PSSLEC; ISSN: 1042-6507

PUBLISHER: Taylor & Francis Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 138:4774

AB Oligonucleotides containing 3'-S-P(S) and 5'-S-P(S) fragments in the deoxy-series are available only by tedious multistep procedures. We have developed a novel and efficient methodol. based on ring opening of anhydronucleosides by phosphorus dithioacids. This approach allows efficient synthesis of modified dinucleotides of the ribo-series.

IT 191474-13-2

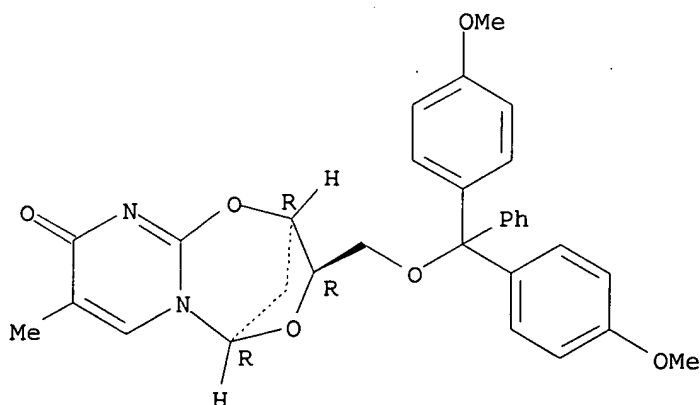
RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of phosphorus containing p-fluorodithioacid oligonucleotides via ring opening of anhydronucleosides using phosphorus dithioacids as the key step)

RN 191474-13-2 CAPLUS

CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,
3-[[bis(4-methoxyphenyl)phenylmethoxy]methyl]-2,3-dihydro-8-methyl-,
(2R,3R,5R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 13 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:201242 CAPLUS

DOCUMENT NUMBER: 136:386339

TITLE: Synthesis and labeling of 5'-O-(4,4'-dimethoxytrityl)-2,3'-anhydrothymidine for [18F]FLT preparation

AUTHOR(S): Blocher, A.; Kuntzsch, M.; Wei, R.; Machulla, H.-J.

CORPORATE SOURCE: Sektion Radiopharmazie, PET-Zentrum, Sektion Radiopharmazie, PET-Zentrum, Universitätsklinikum Tübingen, Tübingen, 72076, Germany

SOURCE: Journal of Radioanalytical and Nuclear Chemistry (2002), 251(1), 55-58

CODEN: JRNCMD; ISSN: 0236-5731

PUBLISHER: Kluwer Academic Publishers

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 136:386339

AB For in vivo measurement of DNA synthesis in the patient's tumor 3'-[18F]fluoro-3'-deoxythymidine (FLT) has been shown to be very promising. As a new labeling precursor 5'-O-(4,4'-dimethoxytrityl)-2,3'-anhydrothymidine (DMTThy) was chosen and an organic synthesis was developed including NMR and MS data for characterization. The 18F-labeling of DMTThy can be performed within 30 min in radiochem. yields of almost 20% when using polar solvents such as DMF or DMSO and a temperature of 160°C. Hydrolysis is completed with 1N HCl at 50°C within 10 min without losses.

IT 191474-13-2P

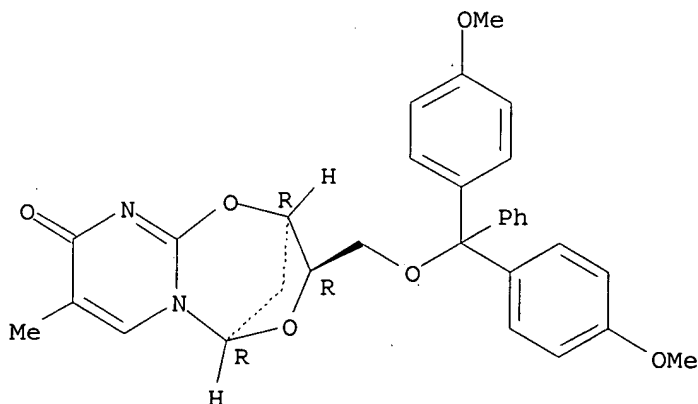
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis and labeling of dimethoxytrityl-2,3'-anhydrothymidine for 3'-[18F]fluoro-3'-deoxythymidine (FLT) preparation)

RN 191474-13-2 CAPLUS

CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one, 3-[[bis(4-methoxyphenyl)phenylmethoxy]methyl]-2,3-dihydro-8-methyl-, (2R,3R,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 14 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN

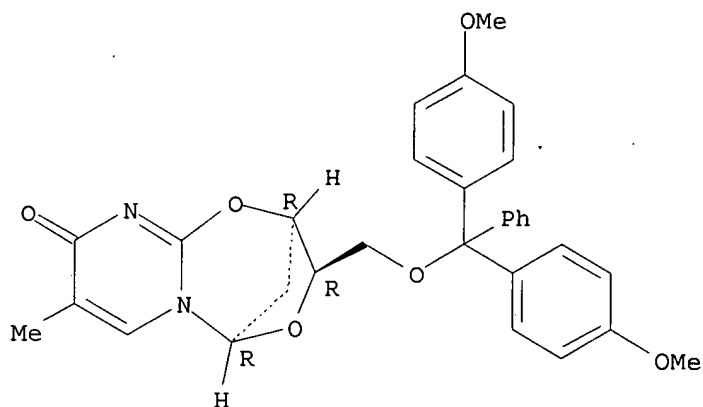
ACCESSION NUMBER: 2001:675249 CAPLUS

DOCUMENT NUMBER: 136:53989

TITLE: Solid-phase synthesis of oligodeoxynucleotides

AUTHOR(S): containing 3'-S-phosphorothiolate linkages
 Fettes, Kevin J.; O'Neil, Ian; Roberts, Stanley M.;
 Cosstick, Richard
 CORPORATE SOURCE: Department of Chemistry, University of Liverpool,
 Liverpool, L69 7ZD, UK
 SOURCE: Nucleosides, Nucleotides & Nucleic Acids (2001),
 20(4-7), 1351-1354
 CODEN: NNNAFY; ISSN: 1525-7770
 PUBLISHER: Marcel Dekker, Inc.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 136:53989
 AB For the first time a fully automated procedure has been developed for the
 incorporation of a 3'-S-phosphorothiolate linkage into DNA, using
 phosphorothioamidite monomers. Coupling yields with either of the
 activators 5-ethylthiotetrazole or 4,5-dicyanoimidazole were in the range
 of 80-90%. Coupling yields were equally good when performed on either a
 0.2 or 1 μ mole reaction column, thus facilitating large scale
 synthesis.
 IT 191474-13-2
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (solid-phase synthesis of oligodeoxynucleotides containing
 phosphorothiolate linkages)
 RN 191474-13-2 CAPLUS
 CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,
 3-[[bis(4-methoxyphenyl)phenylmethoxy]methyl]-2,3-dihydro-8-methyl-,
 (2R,3R,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 15 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2000:760250 CAPLUS
 DOCUMENT NUMBER: 134:56908
 TITLE: Synthesis of 3'-deoxy-3'-[18F]fluoro-thymidine with
 2,3'-anhydro-5'-O-(4,4'-dimethoxytrityl)-thymidine
 AUTHOR(S): Wodarski, C.; Eisenbarth, J.; Weber, K.; Henze, M.;
 Haberkorn, U.; Eisenhut, M.
 CORPORATE SOURCE: German Cancer Research Center (DKFZ), Heidelberg,
 69120, Germany
 SOURCE: Journal of Labelled Compounds & Radiopharmaceuticals
 (2000), 43(12), 1211-1218
 CODEN: JLCRD4; ISSN: 0362-4803
 PUBLISHER: John Wiley & Sons Ltd.
 DOCUMENT TYPE: Journal

LANGUAGE: English
OTHER SOURCE(S): CASREACT 134:56908

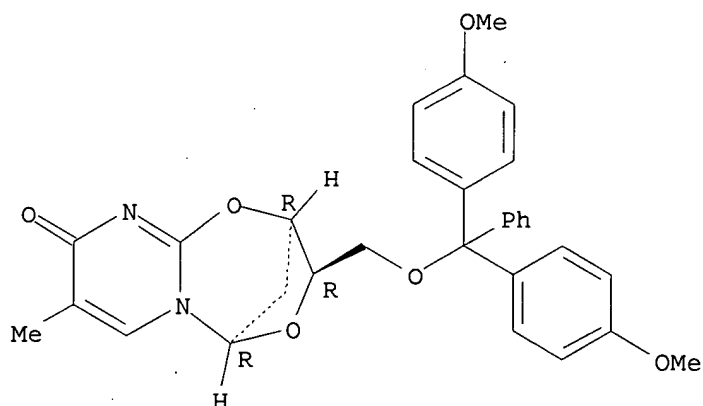
AB [11C]Thymidine has been used as a proliferation marker in positron-emission-tomog. (PET) studies of tumors. This compound showed metabolite related problems and the radiosynthesis proved to be difficult. Recently, the more stable 3'-deoxy-3'-[18F]fluorothymidine ([18F]FLT) has been suggested as an alternative. One advantage of [18F]FLT is based on thymidine kinase-1 catalyzed phosphorylation of FLT and the intracellular accumulation of this metabolite without participation in DNA synthesis. The radiosynthesis of [18F]FLT originally designed by Grierson et al was found to be demanding especially regarding the workup of the [18F]fluoride/1-(2-deoxy-3-O-nosyl-5-O-DMT- β -D-threo-pento-furanosyl)-3-DMBn-thymine reaction mixture. Instead, we used 2,3'-anhydro-5'-O-(4,4'-dimethoxytrityl)thymidine as a precursor for the synthesis of [18F]FLT. In DMSO at 175 °C and in presence of Kryptofix 2.2.2. we obtained 5.6 \pm 1.4% [18F]FLT (EOS).

IT 191474-13-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of 3'-deoxy-3'-[18F]fluoro-thymidine for use in positron-emission-tomog.)

RN 191474-13-2 CAPLUS

CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,
3-[[bis(4-methoxyphenyl)phenylmethoxy]methyl]-2,3-dihydro-8-methyl-,
(2R,3R,5R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 16 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:688631 CAPLUS

DOCUMENT NUMBER: 133:238252

TITLE: Preparation of 3'-azido-2',3'-dideoxythymidine by azidation of 5'-O-aroyl-2',3'-anhydrothymidine and subsequent deprotection

INVENTOR(S): Surzhikov, S. A.; Rumyantseva, N. G.; Kononov, A. V.; Kraevskii, A. A.

PATENT ASSIGNEE(S): S and T Scientific and Technology Inc., Virgin I. (Brit.)

SOURCE: Russ. From: Izobreteniya 1999, (15), 464.
CODEN: RUXXE7

DOCUMENT TYPE: Patent

LANGUAGE: Russian

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

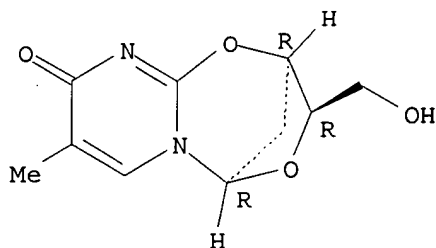
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
RU 2130942	C1	19990527	RU 1997-111134	19970711

PRIORITY APPLN. INFO.:
 RU 1997-111134 19970711

AB Title only translated.
 IT 15981-92-7D, 5'-O-aroyl derivs.
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of 3'-azido-2',3'-dideoxythymidine by azidation of
 5'-O-aroyl-2',3'-anhydrothymidine and subsequent deprotection)

RN 15981-92-7 CAPLUS
 CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,
 2,3-dihydro-3-(hydroxymethyl)-8-methyl-, (2R,3R,5R)- (9CI) (CA INDEX
 NAME)

Absolute stereochemistry.



L13 ANSWER 17 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:346657 CAPLUS
 DOCUMENT NUMBER: 133:150823
 TITLE: Simplified labeling approach for synthesizing
 3'-deoxy-3'-[18F]fluorothymidine ([18F]FLT)
 AUTHOR(S): Machulla, H.-J.; Blocher, A.; Kuntzsch, M.; Piert, M.;
 Wei, R.; Grierson, J. R.
 CORPORATE SOURCE: Sektion Radiopharmazie, PET-Zentrum,
 Universitätsklinikum Tübingen, Tübingen, 72076,
 Germany
 SOURCE: Journal of Radioanalytical and Nuclear Chemistry
 (2000), 243(3), 843-846
 CODEN: JRNCDE; ISSN: 0236-5731
 PUBLISHER: Kluwer Academic Publishers
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 133:150823

AB [18F]FLT (3'-deoxy-3'-[18F]fluorothymidine) turned out to be a tracer particularly suitable for PET imaging of tumor proliferation because of lacking degradation in vivo. To facilitate clin. studies with [18F]FLT, we investigated two new easily accessible precursors, 2,3'-anhydrothymidine (ATHy) and 5'-O-(4,4'-dimethoxytriphenylmethyl)-2,3'-anhydrothymidine (DMTThy), using a common approach for introducing the label with nucleophilic [18F]fluoride. Radiochem. yields were determined in dependence on substrate concentration, reaction time and temperature. In the case of ATHy (10 mg), best FLT yields were 5.3%±1.2 (130°C, 30 min). Labeling of DMTThy (10 mg) gave 14.3%±3.3 at 160°C within 10 min. Starting with an aqueous solution of 20 GBq [18F]fluoride the new method allows to produce 1.3 GBq [18F]FLT within 90 min ready for i.v. injection. The new labeling procedures allow [18F]FLT synthesis without lengthy preparation of the precursor and with high reproducibility mandatory for clin. application.

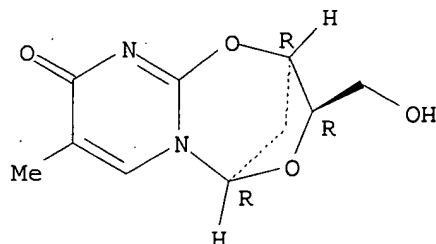
IT 15981-92-7 191474-13-2

RL: RCT (Reactant); RACT (Reactant or reagent)
(simplified labeling approach for synthesizing 3'-deoxy-3'-
[18F]fluorothymidine)

RN 15981-92-7 CAPLUS

CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,
2,3-dihydro-3-(hydroxymethyl)-8-methyl-, (2R,3R,5R)- (9CI) (CA INDEX
NAME)

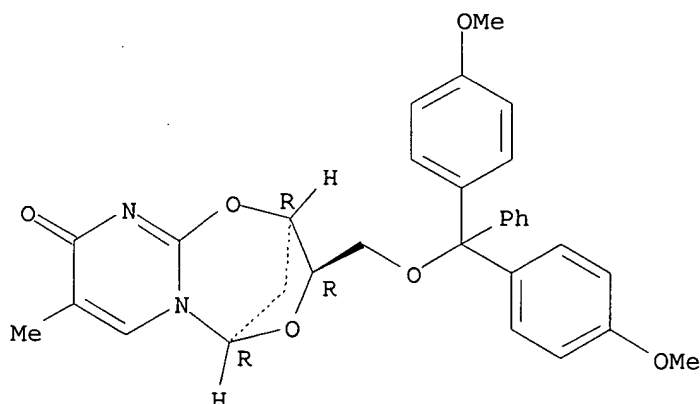
Absolute stereochemistry.



RN 191474-13-2 CAPLUS

CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,
3-[[bis(4-methoxyphenyl)phenylmethoxy]methyl]-2,3-dihydro-8-methyl-,
(2R,3R,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 18 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:255976 CAPLUS

DOCUMENT NUMBER: 133:208102

TITLE: Radio-synthesis of 3'-deoxy-3'-[18F]fluorothymidine:
[18F]FLT for imaging of cellular proliferation in vivo

AUTHOR(S): Grierson, J. R.; Shields, A. F.

CORPORATE SOURCE: Research Imaging Laboratory, University of Washington
Medical Center, Seattle, WA, USA

SOURCE: Nuclear Medicine and Biology (2000), 27(2), 143-156
CODEN: NMBIEO; ISSN: 0969-8051

PUBLISHER: Elsevier Science Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A reliable radio-synthesis of 3'-deoxy-3'-[18F]fluorothymidine ([18F]FLT)
has been developed based on [18F]fluoride displacement of a protected
nosylate precursor. A simple three-step synthesis is described that is

useful for preparing > 10 mCi (370 MBq) of radiochem. pure ^{18}F Ci/ μmol (37 GBq/ μmol) at EOS within 100 min and in 13% radiochem. yield (end of bombardment, EOB); 7% end of synthesis. [^{18}F]FLT has been designed as a new positron emission tomog. imaging agent for visualizing cellular proliferation in vivo based on the metabolism of thymidine.

IT 15981-92-7P

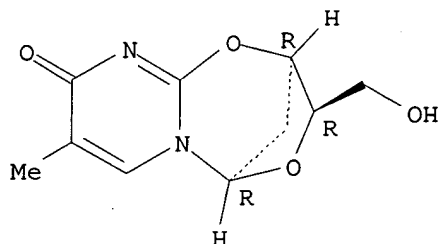
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(radio-synthesis of 3'-deoxy-3'-[^{18}F]fluorothymidine: [^{18}F]FLT for imaging of cellular proliferation in vivo)

RN 15981-92-7 CAPLUS

CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,
2,3-dihydro-3-(hydroxymethyl)-8-methyl-, (2R,3R,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 19 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:145237 CAPLUS

DOCUMENT NUMBER: 132:322061

TITLE: Ab Initio Calculations of Spin-Spin Coupling Constants in Anhydrodeoxythymidines

AUTHOR(S): Czernek, Jiri; Lang, Jan; Sklenar, Vladimir

CORPORATE SOURCE: Laboratory of Biomolecular Structure and Dynamics, Masaryk University, Brno, CZ-611 37, Czech Rep.

SOURCE: Journal of Physical Chemistry A (2000), 104(12), 2788-2792

CODEN: JPCAFH; ISSN: 1089-5639

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB For relatively large organic mols. (containing 16 non-hydrogen atoms each), anhydrodeoxythymidines, three- (3JHH) and two-bond (2JHH) 1H-1H and one-bond 1H-¹³C (1JCH) spin-spin coupling consts. (J-couplings) were determined both exptl. and theor. using NMR spectroscopy and d. functional theory (DFT). A very good agreement between DFT-predicted and measured values was obtained for 3JHH (rmsd = 0.4 Hz). 2JHH and 1JCH were underestimated relative to the experiment For all J-couplings investigated, noncontact contributions were negligible or canceled each other out. In general, the level of agreement between DFT and experiment is very promising.

IT 15981-92-7

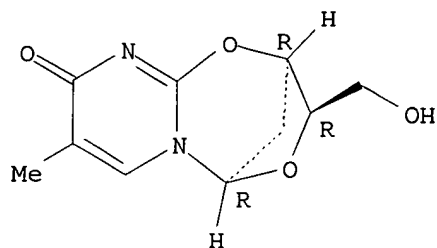
RL: PRP (Properties)

(ab initio calcns. of spin-spin coupling consts. in anhydrodeoxythymidines)

RN 15981-92-7 CAPLUS

CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,
2,3-dihydro-3-(hydroxymethyl)-8-methyl-, (2R,3R,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 20 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:76171 CAPLUS

DOCUMENT NUMBER: 132:265422

TITLE: Synthesis of 3'-S-(2-aminoethylthio)-3'-deoxythymidine 5'-triphosphates

AUTHOR(S): Wojczewski, Christian; Engels, Joachim W.

CORPORATE SOURCE: Institut Organische Chemie, Johann Wolfgang Goethe-Univ., Frankfurt/Main, D-60439, Germany

SOURCE: Synthesis (2000), (1), 149-153
CODEN: SYNTBF; ISSN: 0039-7881

PUBLISHER: Georg Thieme Verlag

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 132:265422

AB 3'S-[2-(tert-butoxycarbonylamino)ethylthio]-3'-deoxy-5'-O-(4,4'-dimethoxytrityl)thymidine (I) was synthesized by treating 5'-O-(4,4'-dimethoxytrityl)-2,3'-anhydrothymidine with tert-Bu N-(2-mercaptoethyl)carbamate and DBU. Compound I was further converted to 3'S-[2-(tert-butoxycarbonylamino)ethylthio]-3'-deoxythymidine 5'-triphosphate and 3'S-(2-aminoethylthio)-3'-deoxythymidine 5'-triphosphate. The latter compound was labeled with a near-IR fluorescent dye.

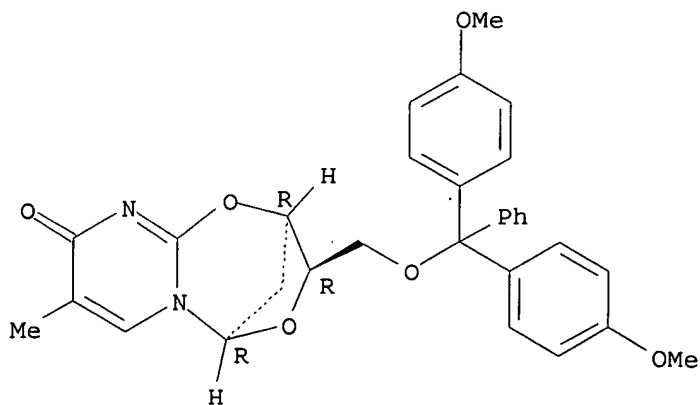
IT 191474-13-2

RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of (aminoethylthio)deoxythymidine phosphates)

RN 191474-13-2 CAPLUS

CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,
3-[[bis(4-methoxyphenyl)phenylmethoxy]methyl]-2,3-dihydro-8-methyl-,
(2R,3R,5R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 21 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:792653 CAPLUS

DOCUMENT NUMBER: 132:208074

TITLE: 2-(Trimethylsilyl)ethanethiol in Nucleoside Chemistry.
A Short Route for Preparing Thionucleosides and Their
Methyl Disulfides

AUTHOR(S): Chambert, Stephane; Gautier-Luneau, Isabelle;
Fontecave, Marc; Decout, Jean-Luc

CORPORATE SOURCE: Laboratoire de Chimie Bio-organique UMR CNRS 506
Departement de Pharmacochimie Moleculaire UFR de
Pharmacie, Universite Joseph Fourier-Grenoble I, La
Tronche, F-38706, Fr.

SOURCE: Journal of Organic Chemistry (2000), 65(1), 249-253
CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB We report here a short route for preparing thio-nucleosides and their corresponding Me disulfides using 2-(trimethylsilyl)ethanethiol (β -ethylsilyl thiol, BEST) as a source of sulfur, a method previously developed by Fuchs and co-workers for synthesizing acyl- and alkyl-substituted thiols. These authors have reported that the 2-(trimethylsilyl)ethyl sulfide intermediate did not afford the corresponding thiol by treatment with fluorides. Reaction with dimethyl(methylthio)sulfonium tetrafluoroborate in the presence of Me disulfide gave the corresponding acyl- or alkyl-substituted Me disulfide, which can be reduced with tributylphosphine. Nucleosides in which a 2'-(2-(trimethylsilyl)ethyl)thio group is linked to the sugar were prepared, and their reaction with dimethyl(methylthio)sulfonium tetrafluoroborate led to the corresponding Me disulfide in high yield. On the contrary, we describe here the first example of direct and quant. elimination of this group in 2'-deoxy-8-(2-(trimethylsilyl)ethyl)thioadenosine with tetrabutylammonium fluoride at room temperature for obtaining the corresponding thione on the base. Such a deprotection should be of interest in the preparation of modified oligonucleotides.

IT 191474-13-2P

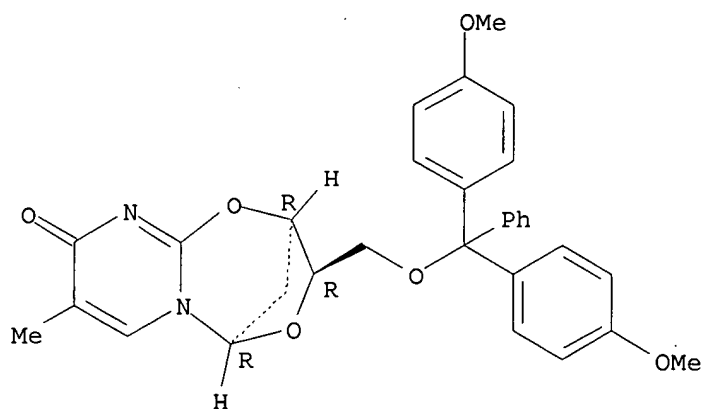
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(trimethylsilylethanethiol in nucleoside chemical a short route for.
preparing
thionucleosides and their Me disulfides)

RN 191474-13-2 CAPLUS

CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,
3-[[bis(4-methoxyphenyl)phenylmethoxy]methyl]-2,3-dihydro-8-methyl-,
(2R,3R,5R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 22 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:268783 CAPLUS

DOCUMENT NUMBER: 131:88114

TITLE: Ab Initio Calculations of ¹H and ¹³C Chemical Shifts in Anhydrodeoxythymidines

AUTHOR(S): Czernek, Jiri; Sklenar, Vladimir

CORPORATE SOURCE: Laboratory of Biomolecular Structure and Dynamics, Masaryk University, Brno, CZ-611 37, Czech Rep.

SOURCE: Journal of Physical Chemistry A (1999), 103(20), 4089-4093

CODEN: JPCAFH; ISSN: 1089-5639

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB For relatively large (containing 16 non-hydrogen atoms each) organic mols., anhydrodeoxythymidines, ¹H and ¹³C NMR chemical shifts were predicted using CPHF-GIAO, DFT-GIAO, and SOS-DFPT-IGLO methods. Both ab initio optimized and exptl. derived geometries of studied compds. were investigated. In the majority of cases, good agreement of theor. and exptl. chemical shifts was obtained with an average rmsd for SOS-DFPT-IGLO, DFT-GIAO, and CPHF-GIAO calcns. of 5.5, 5.2, and 6.6 ppm for ¹³C and 0.233, 0.269, and 0.297 ppm for ¹H, resp. The best overall performance was found with the SOS-DFPT-IGLO technique.

IT 15981-92-7

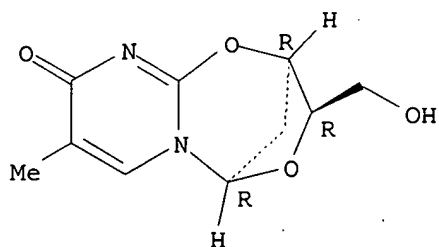
RL: PRP (Properties)

(ab initio calcns. of ¹H and ¹³C chemical shifts in anhydrodeoxythymidines)

RN 15981-92-7 CAPLUS

CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one, 2,3-dihydro-3-(hydroxymethyl)-8-methyl-, (2R,3R,5R)- (9CI) (CA INDEX NAME)

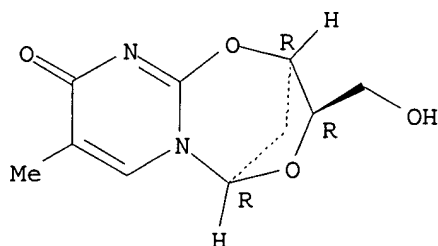
Absolute stereochemistry.



REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 23 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:148425 CAPLUS
DOCUMENT NUMBER: 128:205081
TITLE: The reaction of 2'-deoxynucleosides with
N-(2-chloro-1,1,2-trifluoroethyl)diethylamine:
mechanisms of O2,3'-anhydro-2'-deoxynucleoside and
byproduct formation
AUTHOR(S): Sehgal, Raj K.; Turcotte, Joseph G.
CORPORATE SOURCE: Dep. Medicinal Chem., College Pharmacy, Univ. Rhode
Island, Kingston, RI, 02881, USA
SOURCE: Journal of Chemical Research, Synopses (1998), (1),
24-25
CODEN: JRPSDC; ISSN: 0308-2342
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Reaction mechanisms consistent with the formation of isopropylidene-like
trans-furanose-3',5'-[2-(R)(S)-aminochloro-fluoromethyl-1,3-dioxanyl]-2'-
deoxynucleoside intermediates, O2,3'-anhydro-2'-deoxynucleosides and other
minor reaction products and the yield-limiting effect of
trans-furanose-3',5'-[2-(R)(S)-aminochloro-fluoromethyl-1,3-dioxanyl]-2'-
deoxynucleoside on the cyclization of O2,3'-anhydro-2'-deoxynucleosides
are proposed.
IT 15981-92-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(reaction of deoxynucleosides with chlorotrifluoroethyldiethylamine)
RN 15981-92-7 CAPLUS
CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,
2,3-dihydro-3-(hydroxymethyl)-8-methyl-, (2R,3R,5R)- (9CI) (CA INDEX
NAME)

Absolute stereochemistry.



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 24 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:357328 CAPLUS
DOCUMENT NUMBER: 127:81728
TITLE: A facile route to 3'-modified oligonucleotides
AUTHOR(S): Shchepinov, Mikhail S.; Stetsenko, Dmitry A.
CORPORATE SOURCE: Dep. of Biochemistry, Oxford University, Oxford, OX1
3QU, UK
SOURCE: Bioorganic & Medicinal Chemistry Letters (1997), 7(9),
1181-1184
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal

LANGUAGE: English

AB We describe an easy method for the solid phase synthesis of 3'-modified oligonucleotides. The general synthetic scheme involves the immobilization of 5'-DMTr-T to CPG via a sulfonate linker, oligonucleotide synthesis and subsequent basic treatment to afford 3'-modified oligonucleotides containing a 2,3'-anhydronucleoside moiety. These compds. can be readily transformed into 3'-substituted oligonucleotides such as 3'-deoxy-3'-azido species.

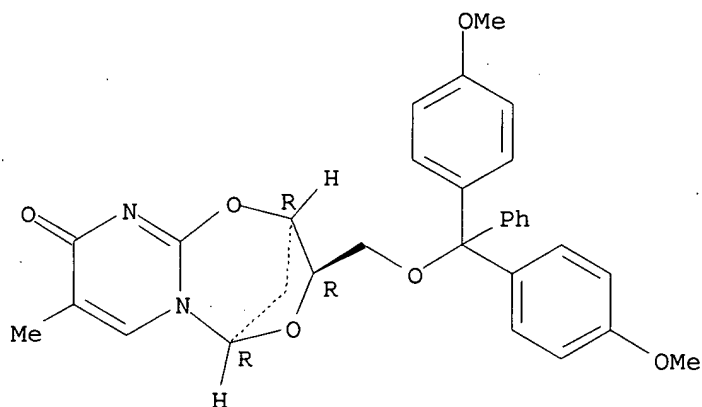
IT 191474-13-2P

RL: SPN (Synthetic preparation); PREP (Preparation)
(solid phase preparation of 3'-modified oligodeoxyribonucleotides)

RN 191474-13-2 CAPLUS

CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,
3-[[bis(4-methoxyphenyl)phenylmethoxy]methyl]-2,3-dihydro-8-methyl-,
(2R,3R,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 25 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:341254 CAPLUS

DOCUMENT NUMBER: 125:108579

TITLE: Effects of modifications in the pentose moiety and conformational changes on the binding of nucleoside ligands to uridine phosphorylase from *Toxoplasma gondii*

AUTHOR(S): el Kouni, Mahmoud H.; Naguib, Fardos N. M.; Panzica, Raymond P.; Otter, Brian A.; Chu, Shih-Hsi; Gosselin, Gilles; Chu, Chung K.; Schinazi, Raymond F.; Shealy, Y. Fulmer; et al.

CORPORATE SOURCE: Dep. Pharmacol. Toxicol., Univ. Alabama Birmingham, Birmingham, AL, 35294, USA

SOURCE: Biochemical Pharmacology (1996), 51(12), 1687-1700
CODEN: BCPA6; ISSN: 0006-2952

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB One hundred and fifty analogs of uridine, with various modifications to the uracil and pentose moieties, have been tested and compared with uridine with respect to their potency to bind to uridine phosphorylase (UrdPase, EC 2.4.2.3) from *Toxoplasma gondii*. The effects of the α - and β -anomers, the L- and D-enantiomers, as well as restricted syn and anti rotamers, on binding were examined. Pseudo-, lyxo-, 2,3'-anhydro-2'-deoxy-, 6,5'-cyclo-, 6,3'-methano-, 05',6-methano- and carbocyclic uridines did not bind to the enzyme. Ribosides bound better

than the corresponding xylosides, which were better than the deoxyribosides. The binding of deoxyribosides was in the following manner: 2',3'-dideoxynucleosides > 2',5'-dideoxynucleosides > 2'-deoxyribosides > 3'- and 5'-deoxyribosides. The α -2'-deoxyribosides bound to the enzyme, albeit less tightly than the corresponding β -anomers. The acyclo- and 2,2'-anhydrouridines bound strongly, with the 2,2'-anhydro-derivs. being the better ligands. 2,5'-Anhydrouridine bound to UrdPase less effectively than 2,2'-anhydrouridine and acylouridine,. Arabinosyluracil was at best a very poor ligand, but bound better if a benzyl group was present at the 5-position of the pyrimidine ring. This binding was enhanced further by adding a 5-benzoyloxybenzyl group. A similar enhancement of the binding by increased hydrophobicity at the 5-position of the pyrimidine ring was observed with ribosides, α - and β -anomers of the 2'-deoxyribosides, acyclonucleosides, and 2,2'-anhydronucleosides. Among all the compds. tested, 5-(benzyloxybenzyl)-2,2'-anhydrouridine was identified as the best ligand of *T. gondii* UrdPase with an apparent K_i value of 60 ± 3 nM. It is concluded that the presence of an N-glycosyl bond is a prerequisite for a nucleoside ligand to bind to *T. gondii* UrdPase. On the other hand, the presence of a 2'-, 3'-, or 5'-hydroxyl group, or an N-glycosyl bond in the β -configuration, enhanced but was not essential for binding. Furthermore, the potency of the binding of 2,2'-anhydrouridines (fixed high syn isomers), and the complete lack of binding of the 6,5'-cyclo, 05',6-methano- and 6,3'-methanouridines (fixed anti isomers), and the complete lack of binding of the 6,5'-cyclo, 05',6-methano- and 6,3'-methanouridines (fixed anti isomers) to *T. gondii* UrdPase indicate that the binding of ligands to this enzyme is in the syn/high syn conformation around the N-glycosyl bond. The results also indicate that the parasite but not the mammalian host UrdPase can participate in hydrogen bonding with N3 of the pyrimidine ring of nucleoside ligands. *T. gondii* UrdPase also has a larger hydrophobic pocket adjacent to the C5 of the pyrimidine moiety than the host enzyme, and can accommodate modifications in the pentose moiety which cannot be tolerated by the host enzyme. Most prominent among these modifications is the absence and/or lack of the ribo orientation of the 3'-hydroxyl group, which is a requirement for a ligand to bind to mammalian UrdPase. These differences between the parasite and host enzymes can be useful in designing specific inhibitors or subversive substrates for *T. gondii* UrdPase.

IT 15981-92-7

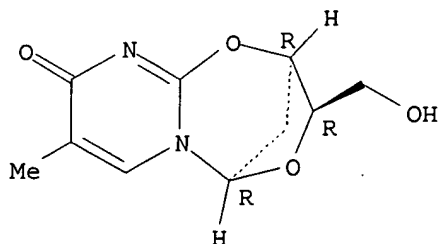
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)

(effects of modifications in the pentose moiety and conformational changes on the binding of nucleoside ligands to uridine phosphorylase from *Toxoplasma gondii*)

RN 15981-92-7 CAPLUS

CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one, 2,3-dihydro-3-(hydroxymethyl)-8-methyl-, (2R,3R,5R)- (9CI) (CA INDEX NAME)

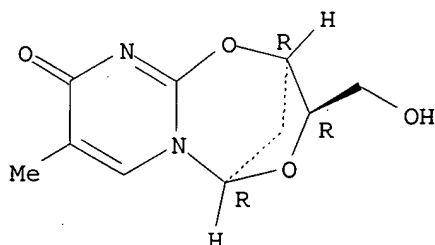
Absolute stereochemistry.



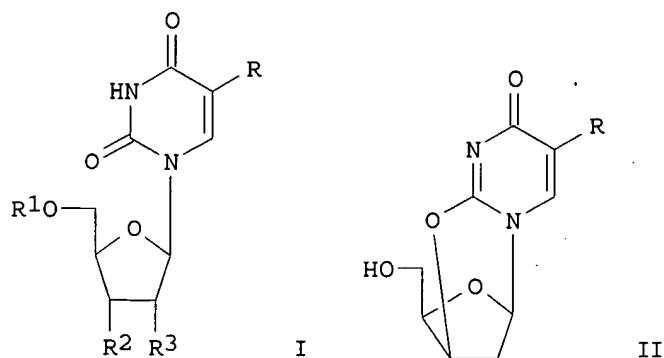
L13 ANSWER 26 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1996:198524 CAPLUS
 DOCUMENT NUMBER: 124:343961
 TITLE: An improved synthesis of azidothymidine
 AUTHOR(S): Balagopala, Meher I.; Ollapally, Abraham P.; Lee, Henry J.
 CORPORATE SOURCE: Dep. of Chemistry, Florida A & M Univ., Tallahassee, FL, 32307, USA
 SOURCE: Nucleosides & Nucleotides (1996), 15(4), 899-906
 CODEN: NUNUD5; ISSN: 0732-8311
 PUBLISHER: Dekker
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 124:343961

AB A convenient and high yielding procedure is described for a direct conversion of thymidine into 2,3'-anhydrothymidine using the Mitsunobu reaction. AZT has been synthesized from thymidine in two steps, in 62% overall yield, by heating 2,3'-anhydrothymidine with NaN₃ in DMF.
 IT 15981-92-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (improved synthesis of azidothymidine from thymidine)
 RN 15981-92-7 CAPLUS
 CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one, 2,3-dihydro-3-(hydroxymethyl)-8-methyl-, (2R,3R,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L13 ANSWER 27 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1995:866644 CAPLUS
 DOCUMENT NUMBER: 124:87660
 TITLE: Synthesis of 2,3'-anhydro-2'-deoxyuridines and 2',3'-didehydro-2',3'-dideoxyuridines using polymer supported fluoride
 AUTHOR(S): Larsen, Erik; Kofoed, Thomas; Pedersen, Erik B.
 CORPORATE SOURCE: Dep. Chem., Odense Univ., Odense, DK-5230, Den.
 SOURCE: Synthesis (1995), (9), 1121-5
 CODEN: SYNTBF; ISSN: 0039-7881
 PUBLISHER: Thieme
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 124:87660
 GI



AB Reaction of Me 5-O-tert-butyldiphenylsilyl-2-deoxy-3-O-p-toluenesulfonyl- α,β -D-erythro-pentofuranoside with silylated uracils with CF₃SO₃SiMe₃ as catalyst afforded after crystallization in Et₂O the corresponding

β -nucleosides I (R = H, Me, Et, F, Br, I; R₁ = Me₃CPh₂SO₂; R₂ = 4-MeC₆H₄SO₃; R₃ = H). Reaction of I with Bu₄NF or amberlyst A-26 resin (F--form) in THF at room temperature or at reflux gave the corresponding deprotected compds. I (R₁ = H; R₂R₃ = bond) and II.

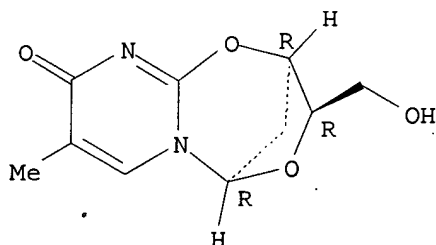
IT 15981-92-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of anhydrodeoxyuridines and didehydrideoxyuridines with polymer supported fluoride)

RN 15981-92-7 CAPLUS

CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,
2,3-dihydro-3-(hydroxymethyl)-8-methyl-, (2R,3R,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L13 ANSWER 28 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:703901 CAPLUS

DOCUMENT NUMBER: 124:9261

TITLE: Synthesis, conformation of 3'-(tetrazole-2''-yl)-3'-deoxythymidine and its 5''-derivatives. Substrate properties of 3'-(tetrazole-2''-yl)-3'-deoxythymidine 5'-triphosphate

AUTHOR(S): Ostrovskii, V. A.; Studentsov, E. P.; Poplavskii, V. S.; Ivanova, N. V.; Gurskaya, G. V.; Zavodnik, V. E.; Jasko, M. V.; Semizarov, D. G.; Krayevsky, A. A.
CORPORATE SOURCE: St. Petersburg Technological Institute, St. Petersburg, 198013, Russia

SOURCE: Nucleosides & Nucleotides (1995), 14(6), 1289-300
CODEN: NUNUD5; ISSN: 0732-8311

PUBLISHER: Dekker

DOCUMENT TYPE: Journal

LANGUAGE: English

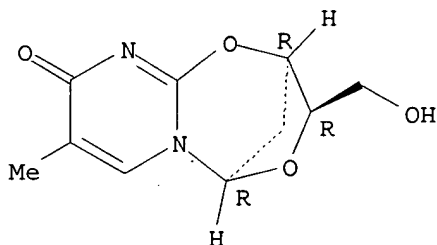
AB 5'-O-Benzoyl-3'-(tetrazole-2''-yl)-3'-deoxythymidine and its 5''-substituted derivs. were obtained by the reaction of 5'-O-benzoyl-2,3'-anhydrothymidine with triethylammonium salts of either tetrazole or 5-substituted tetrazoles. Debenzoylation of these compds. yielded 3'-(tetrazole-2''-yl)-3'-deoxythymidine and its 5''-derivs. Structures of two of them were confirmed by x-ray anal. Both 3'-(tetrazole-2''-yl)-3'-deoxythymidine and 3'-(5''-methyltetrazole-2''-yl)-3'-deoxythymidine have anti-conformation with respect to the glycosidic bond, and 2'-endo-3'-exo-conformation of the sugar residue with gauche orientation relative to the C4'-C5'-bond. 3'-(Tetrazole-2''-yl)-3'-deoxythymidine 5'-triphosphate exhibited poor termination substrate properties towards avian myeloblastosis virus reverse transcriptase and did not serve as a substrate for other employed DNA polymerases.

IT 15981-92-7
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (synthesis and conformation of tetrazole deoxythymidine and its triphosphate as substrate of avian myeloblastosis virus reverse transcriptase)

RN 15981-92-7 CAPLUS

CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one, 2,3-dihydro-3-(hydroxymethyl)-8-methyl-, (2R,3R,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L13 ANSWER 29 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:385075 CAPLUS

DOCUMENT NUMBER: 122:265912

TITLE: Fluorination at C2', C3' and C5' of nucleosides with 1-chloromethyl-4-fluoro-1,4-diazabicyclo[2.2.2]octane bis(tetrafluoroborate) Selectfluor reagent

AUTHOR(S): Lal, G. Sankar

CORPORATE SOURCE: Air Products Chemicals, Inc., Corporate Science Technology Center, Allentown, PA, 18195-1501, USA

SOURCE: Synthetic Communications (1995), 25(5), 725-37
 CODEN: SYNCAV; ISSN: 0039-7911

PUBLISHER: Dekker

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 122:265912

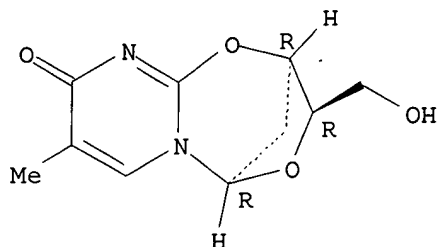
AB Electrophilic fluorination of thioaryl ethers on the sugar component of nucleosides with com. available SELECTFLUOR reagent provides a new method for the synthesis of C2', C3' and C5' fluoronucleosides.

IT 15981-92-7
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (regio- and stereoselective electrophilic fluorination of nucleosides with chloromethylfluorodiazabicyclooctane bis(tetrafluoroborate))

RN 15981-92-7 CAPLUS

CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one, 2,3-dihydro-3-(hydroxymethyl)-8-methyl-, (2R,3R,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L13 ANSWER 30 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:342089 CAPLUS

DOCUMENT NUMBER: 122:240306

TITLE: Enzymic regioselective alkoxy carbonylation of nucleosides and its utility in nucleoside derivative synthesis

AUTHOR(S): Gotor, Vicente; Moris, Francisco; Garcia-Alles, Luis F.

CORPORATE SOURCE: Facultad de Quimica, Universidad de Oviedo, Oviedo, 33071, Spain

SOURCE: Biocatalysis (1994), 10(1-4), 295-305

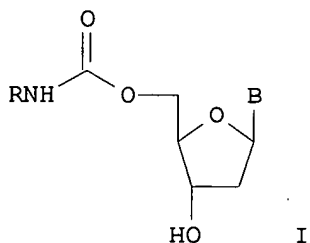
CODEN: BIOCED; ISSN: 0886-4454

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 122:240306

GI



AB The regioselective enzymic alkoxy carbonylation of nucleosides is described for α -, xylo-, anhydro-, and arabino-nucleosides to obtain Cbz-derivs. The utility of these compds. and of the related vinyl carbonates of 2'-deoxynucleosides is shown by the synthesis of 3'-O-acetates of α - and xylo-thymidine and the synthesis of some nucleoside carbamates, e.g. I (R = H, Bn, B = adenine, thymine).

IT 15981-92-7

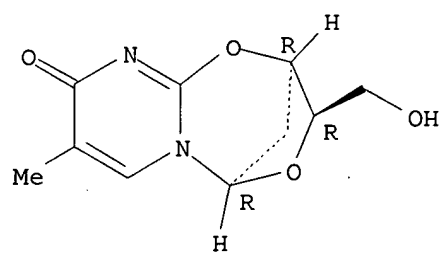
RL: RCT (Reactant); RACT (Reactant or reagent)

(enzymic regioselective alkoxy carbonylation of nucleosides in preparation of carbonate carbamate derivs.)

RN 15981-92-7 CAPLUS

CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one, 2,3-dihydro-3-(hydroxymethyl)-8-methyl-, (2R,3R,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L13 ANSWER 51 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1989:91126 CAPLUS

DOCUMENT NUMBER: 110:91126

TITLE: Inhibition of uridine phosphorylase by pyrimidine nucleoside analogs and consideration of substrate binding to the enzyme based on solution conformation as seen by NMR spectroscopy

AUTHOR(S): Veres, Zsuzsa; Neszmelyi, Andras; Szabolcs, Anna; Denes, Geza

CORPORATE SOURCE: Cent. Res. Inst. Chem., Hung. Acad. Sci., Budapest, H-1525, Hung.

SOURCE: European Journal of Biochemistry (1988), 178(1), 173-81

CODEN: EJBCAI; ISSN: 0014-2956

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Some 3'- and(or) 5'-substituted pyrimidine nucleosides, as well as anhydropyrimidine nucleosides, which have no flexibility about the N-glycosidic bond were studied as inhibitors of thymidine phosphorylase and uridine phosphorylase. The conformation of some analogs was also investigated to obtain information on substrate binding to the enzyme. The above compds., including the potential anti-(human immunodeficiency virus) agent, 3'-azido-2',3'-dideoxy-5-methyluridine were not substrates for either thymidine phosphorylase or uridine phosphorylase. The only exception was arabinofuranosyl-5-ethyluracil, which proved to be a poor substrate for uridine phosphorylase. The phosphorolysis of thymidine by thymidine phosphorylase was slightly or not at all altered by these pyrimidine nucleoside analogs. The lowest K_i was obtained in the case of 3'-azido-2',3'-dideoxy-5-methyluridine and the highest in the case of 2'-deoxylyxofuranosyl-5-ethyluracil, when studying the analogs with flexible structure as inhibitors of uridine phosphorylase. The K_i for 2,3'- and 2,5'-anhydro-2'-deoxy-5-ethyluridine was 5-6 orders of magnitude higher than that for 2,2'-anhydro-5-ethyluridine. Competitive inhibition was observed in all cases. For these three mols. computer-aided mol. modeling predicts the following glycosidic torsion angles χ ($O4, -C1, -N1-C2$): 109° for 2,2'-anhydro-5-ethyluridine, and 78 and 71° for 2,3'- and 2,5'-anhydro-2'-deoxy-5-ethyluridine resp. These values are corroborated by high-resolution ^{13}C and 1H NMR studies. 2'-Deoxy-5-ethyluridine is predicted to have a syn conformation with $\chi = 46^\circ$ and ΔE .apprx.2.5 kJ/mol over the min. energy (in anti position, $\chi = -147^\circ$). 1H and ^{13}C data, including homonuclear Overhauser enhancements, complete the information about the solution conformation. Considering the K_i values obtained, it is likely that substrates of uridine phosphorylase will bind to the enzyme in the same conformation as 2,2'-anhydro-5-ethyluridine. The $>30^\circ$ deviation from the N-glycosidic torsion angle of 2,2'-anhydro-5-ethyluridine results in much higher K_i values.

IT 15981-92-7

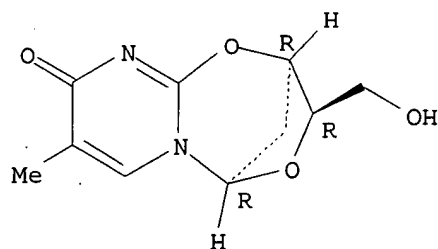
RL: PROC (Process)

(conversion of, to azidodideoxymethyluridine)

RN 15981-92-7 CAPLUS

CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one, 2,3-dihydro-3-(hydroxymethyl)-8-methyl-, (2R,3R,5R)- (9CI) (CA INDEX NAME)

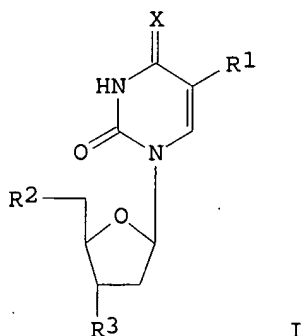
Absolute stereochemistry.



L13 ANSWER 52 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1988:611404 CAPLUS
 DOCUMENT NUMBER: 109:211404
 TITLE: Preparation of 1-(3-azido-2,3-dideoxy-erythro-pentofuranosyl)pyrimidines via anhydro intermediates
 INVENTOR(S): Hayauchi, Yutaka; Lockhoff, Oswald
 PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.
 SOURCE: Ger. Offen., 13 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3705794	A1	19880901	DE 1987-3705794	19870224
EP 280128	A2	19880831	EP 1988-102069	19880212
R: DE, FR, GB, IT				
JP 63222194	A2	19880916	JP 1988-34120	19880218
PRIORITY APPLN. INFO.:			DE 1987-3705794	A 19870224
OTHER SOURCE(S):	CASREACT 109:211404; MARPAT 109:211404			

GI



I

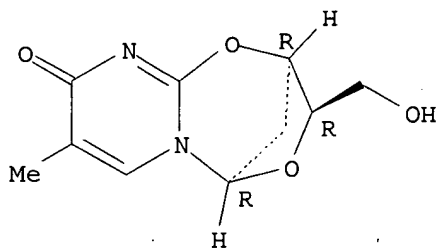
AB The title compds (I; R1 = H, Me, Et, halo; R2 = OH, R3 = N3; X = O, NH, NAc, NBz) (II), useful as virucides (no data), were prepared 5'-O-tert-Butyldimethylsilyl-3'-O-methylsulfonylthymidine (preparation given) in acetone/H2O was refluxed 5 d with KF to give 2,3'-anhydro-1-(2-deoxy-β-D-threo-pentofuranosyl) thymine. The latter was heated at 140° in DMF with NaN3 to give 3'-azido-3'-deoxythymidine.

IT 15981-92-7P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of, as virucide intermediate)

RN 15981-92-7 CAPLUS
 CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,

2,3-dihydro-3-(hydroxymethyl)-8-methyl-, (2R,3R,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L13 ANSWER 53 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1988:38269 CAPLUS

DOCUMENT NUMBER: 108:38269

TITLE: Synthesis and study of the dinucleoside phosphates containing arabino- and deoxyxylonucleosides

AUTHOR(S): Sokolova, N. I.; Krynetskaya, N. F.; Suchanova, L. L.; Dolinnaya, N. G.; Shabarova, Z. A.

CORPORATE SOURCE: Chem. Dep., M. V. Lomonosov State Univ., Moscow, USSR

SOURCE: Bioorganicheskaya Khimiya (1987), 13(3), 379-85

CODEN: BIKHD7; ISSN: 0132-3423

DOCUMENT TYPE: Journal

LANGUAGE: Russian

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Two isomeric pairs of dinucleoside phosphates containing deoxyxylosylthymine and arabinosyluracil e.g. I-IV were synthesized. Conversion of configuration at C2' or C3' in 5'-terminal sugar moieties of the dinucleoside phosphates resulting either in complete distortion of stacking or in opposite handedness of the helix was confirmed by CD. A similar modification in 3'-terminal sugar moieties did not significantly affect the chain geometry. Kinetics of hydrolysis of the modified dinucleoside phosphates catalyzed by venom phosphodiesterase using HPLC confirmed that the Km values were similar for all compds. as well as for d(Tpa). The maximum hydrolysis rate is decreased for the modified compds., depending on the position and the nature of the modified nucleoside.

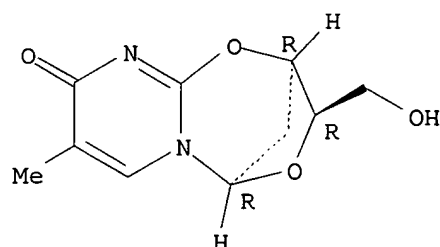
IT 15981-92-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 15981-92-7 CAPLUS

CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,
2,3-dihydro-3-(hydroxymethyl)-8-methyl-, (2R,3R,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L13 ANSWER 54 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1987:452002 CAPLUS

DOCUMENT NUMBER: 107:52002

TITLE: Therapeutic nucleosides

INVENTOR(S): Rideout, Janet Litster; Barry, David Walter; Lehrman, Sandra Nusinoff; St. Clair, Martha Heider; Furman, Phillip Allen; Beacham, Lowrie Miller, III; LeBlanc, Harry Sidney; Freeman, George Andrew

PATENT ASSIGNEE(S): Wellcome Foundation Ltd., UK

SOURCE: Eur. Pat. Appl., 29 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 199451	A2	19861029	EP 1986-301896	19860314
EP 199451	A3	19900905		
EP 199451	B1	19960306		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
DK 8601182	A	19860917	DK 1986-1182	19860314
DK 166805	B1	19930719		
AU 8654757	A1	19860918	AU 1986-54757	19860314
AU 578809	B2	19881103		
ZA 8601933	A	19871028	ZA 1986-1933	19860314
ZA 8601934	A	19871028	ZA 1986-1934	19860314
EP 291633	A1	19881123	EP 1988-101790	19860314
EP 291633	B1	19921104		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
EP 306597	A2	19890315	EP 1988-101795	19860314
EP 306597	A3	19920819		
EP 306597	B1	19941102		
EP 306597	B2	20021016		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
AT 44464	E	19890715	AT 1986-301897	19860314
HU 201678	B	19901228	HU 1989-833	19860314
IL 85095	A1	19910512	IL 1986-85095	19860314
CA 1285935	A1	19910709	CA 1986-504095	19860314
AT 81978	E	19921115	AT 1988-101790	19860314
IL 85096	A1	19940227	IL 1986-85096	19860314
AT 135011	E	19960315	AT 1986-301896	19860314
JP 61257926	A2	19861115	JP 1986-59073	19860317
JP 07023314	B4	19950315		
US 4780453	A	19881025	US 1986-945234	19861223
AT 8700889	A	19901115	AT 1987-889	19870409
AT 392794	B	19910610		
CA 1303032	A2	19920609	CA 1988-556981	19880120
ES 557834	A1	19880616	ES 1988-557834	19880429
ES 557834	A5	19880715		

ES 557835	A1	19880901	ES 1988-557835	19880429
ES 557835	A5	19880930		
ES 557836	A1	19880901	ES 1988-557836	19880429
ES 557836	A5	19880930		
US 4874751	A	19891017	US 1988-279324	19881202
CA 1340519	A1	19990427	CA 1992-616284	19920113
US 5885957	A	19990323	US 1997-882888	19970626

PRIORITY APPLN. INFO.:

GB 1985-6868	A	19850316
GB 1985-6869	A	19850316
GB 1985-11774	A	19850509
GB 1985-11775	A	19850509
GB 1985-23881	A	19850927
US 1985-776899	A	19850917
US 1985-776900	A1	19850917
US 1985-776901	A1	19850917
GB 1986-3450	A	19860212
AT 1986-683	A	19860314
CA 1986-504126	A3	19860314
EP 1986-301897	P	19860314
EP 1988-101790	A	19860314
IL 1986-78158	A	19860314
US 1986-839795	B1	19860314
CA 1988-556981	A3	19880120
US 1988-188735	B1	19880429
US 1991-670499	B1	19910315
US 1991-792812	B1	19911115
US 1993-540593	A1	19930226

OTHER SOURCE(S): MARPAT 107:52002

AB 3'-Azido-3'-deoxythymidine, its threo-3'-azido isomer and some of their derivs. are active against human and animal retroviruses, such as HTLV-1, HTLV-II and feline leukemia virus, as well as gram-neg. bacterial infections. The preparation of these nucleosides is given. Thus, a mixture of thymidine, N-(2-chloro-1,1,2-trifluoroethyl)diethylamine and DMF was heated at 70° for 30 min to give 2,3'-O-anhydrothymidine, which upon refluxing for 5 h with NaN₃ in aqueous DMF gave 3'-azido-3'-deoxythymidine (I). I.v. administration of 30 mg I/kg/day for 6 wk to cats, with feline leukemia decreased by 10-90% the feline leukemia virus level in the leukocytes. Formation examples are given.

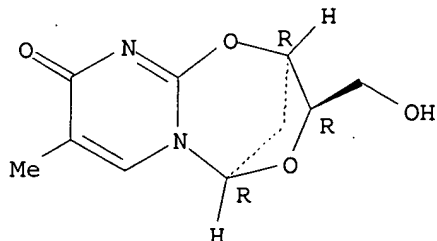
IT 15981-92-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with sodium azide)

RN 15981-92-7 CAPLUS

CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,
2,3-dihydro-3-(hydroxymethyl)-8-methyl-, (2R,3R,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



DOCUMENT NUMBER: 106:38480
 TITLE: Virucidal 3'-azido-3'-deoxythymidine
 INVENTOR(S): Rideout, Janet Lister; Barry, David Walter; Lehrman, Sandra Nusinoff; St. Clair, Martha Heider; Furman, Phillip Allen; Freeman, George Andrew
 PATENT ASSIGNEE(S): Wellcome Foundation Ltd., UK
 SOURCE: Ger. Offen., 50 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 4
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3608606	A1	19860918	DE 1986-3608606	19860314
US 4724232	A	19880209	US 1985-776899	19850917
DK 8601180	A	19860917	DK 1986-1180	19860314
DK 164392	B	19920622		
DK 164392	C	19921109		
FI 8601069	A	19860917	FI 1986-1069	19860314
FI 85978	B	19920313		
FI 85978	C	19920625		
AU 8654758	A1	19860918	AU 1986-54758	19860314
AU 572019	B2	19880428		
EP 196185	A2	19861001	EP 1986-301897	19860314
EP 196185	A3	19880113		
EP 196185	B1	19890712		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
HU 40570	A2	19870128	HU 1986-1079	19860314
HU 197209	B	19890328		
ZA 8601933	A	19871028	ZA 1986-1933	19860314
ES 553013	A1	19871101	ES 1986-553013	19860314
IL 78158	A1	19880429	IL 1986-78158	19860314
CA 1238277	A1	19880621	CA 1986-504126	19860314
EP 291633	A1	19881123	EP 1988-101790	19860314
EP 291633	B1	19921104		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
EP 306597	A2	19890315	EP 1988-101795	19860314
EP 306597	A3	19920819		
EP 306597	B1	19941102		
EP 306597	B2	20021016		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
AT 44464	E	19890715	AT 1986-301897	19860314
AT 8600683	A	19890815	AT 1986-683	19860314
AT 390000	B	19900226		
HU 199501	B	19900228	HU 1987-4087	19860314
HU 201678	B	19901228	HU 1989-833	19860314
IL 85095	A1	19910512	IL 1986-85095	19860314
AT 81978	E	19921115	AT 1988-101790	19860314
IL 85096	A1	19940227	IL 1986-85096	19860314
JP 61257925	A2	19861115	JP 1986-59072	19860317
JP 04007726	B4	19920212		
DD 251984	A5	19871202	DD 1986-294404	19860915
ZA 8607013	A	19880427	ZA 1986-7013	19860915
DD 262802	A5	19881214	DD 1986-309343	19860915
IL 93223	A1	19920216	IL 1986-93223	19860915
ES 557209	A1	19880716	ES 1986-557209	19861118
ES 557209	A5	19880816		
US 4780453	A	19881025	US 1986-945234	19861223
AT 8700889	A	19901115	AT 1987-889	19870409
AT 392794	B	19910610		
US 4818750	A	19890404	US 1987-110968	19871020

US 4833130	A	19890523	US 1987-110946	19871020
US 4837208	A	19890606	US 1987-110377	19871020
US 4847244	A	19890711	US 1987-110947	19871020
US 4818538	A	19890404	US 1987-111205	19871021
US 4828838	A	19890509	US 1987-111208	19871021
CA 1303032	A2	19920609	CA 1988-556981	19880120
US 4857511	A	19890815	US 1988-152977	19880208
US 4874609	A	19891017	US 1988-153258	19880208
AU 8812159	A1	19880623	AU 1988-12159	19880224
AU 587739	B2	19890824		
AU 574620	B1	19880707	AU 1988-12158	19880224
JP 63290895	A2	19881128	JP 1988-73488	19880329
JP 07080898	B4	19950830		
ES 557834	A1	19880616	ES 1988-557834	19880429
ES 557834	A5	19880715		
ES 557835	A1	19880901	ES 1988-557835	19880429
ES 557835	A5	19880930		
ES 557836	A1	19880901	ES 1988-557836	19880429
ES 557836	A5	19880930		
US 5093114	A	19920303	US 1990-622396	19901130
DK 9102026	A	19911218	DK 1991-2026	19911218
DK 175122	B1	20040607		
DK 9102027	A	19911218	DK 1991-2027	19911218
DK 175192	B1	20040705		
CA 1340519	A1	19990427	CA 1992-616284	19920113
US 5885957	A	19990323	US 1997-882888	19970626

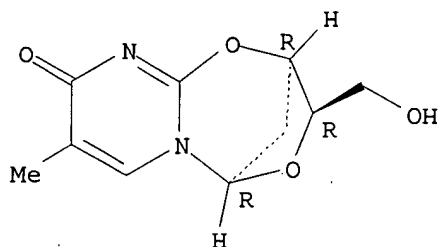
PRIORITY APPLN. INFO.:

GB 1985-6869	A	19850316
GB 1985-11774	A	19850509
US 1985-776899	A	19850917
GB 1985-23881	A	19850927
GB 1986-3450	A	19860212
US 1985-776900	A1	19850917
GB 1985-23878	A	19850927
GB 1986-3447	A	19860212
GB 1986-3719	A	19860214
AT 1986-683	A	19860314
CA 1986-504126	A3	19860314
EP 1986-301897	P	19860314
EP 1988-101790	A	19860314
IL 1986-78158	A	19860314
US 1986-839795	B1	19860314
GB 1986-8272	A	19860404
GB 1986-15322	A	19860623
US 1986-877796	A	19860623
IL 1986-80035	A	19860915
CA 1988-556981	A3	19880120
US 1988-153258	A1	19880208
US 1988-188735	B1	19880429
US 1989-407579	B1	19890915
US 1991-670499	B1	19910315
US 1991-792812	B1	19911115
US 1993-540593	A1	19930226

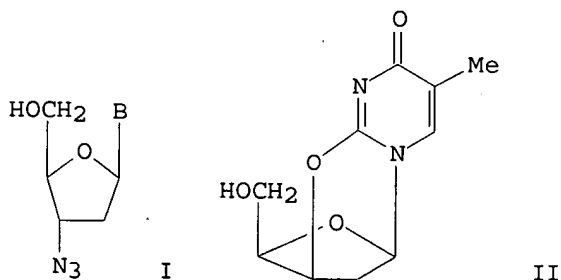
AB 3'-Azido-3'-deoxythymidine (I) and their derivs., such as the 5'-diphosphate, 5'-(3-methylbutyrate)-, 5'-octanoate, 5'-palmitate, and 5'-pivalate are prepared as agents active against human retroviruses. The compds. can be used for the treatment of AIDS, generalized lymphadenopathy, and similar diseases. Thus, a mixture of 2,3'-O-anhydrothymidine, NaN₃, DMF, and water was refluxed for 5 h, to give I. Addition of 1 mg I/mL to the drinking water of mice inoculated with the RVB3 strain of the Rauscher leukemia virus, suppressed the infection of the spleen cells and the development of splenomegalia. A tablet was formulated containing I 250, lactose 210, Povidon 15, Na starch glycolate 20, and Mg stearate 5 mg.

IT 15981-92-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation and reaction of, with sodium azide)
 RN 15981-92-7 CAPLUS
 CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,
 2,3-dihydro-3-(hydroxymethyl)-8-methyl-, (2R,3R,5R)- (9CI) (CA INDEX
 NAME)

Absolute stereochemistry.



L13 ANSWER 56 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1984:592378 CAPLUS
 DOCUMENT NUMBER: 101:192378
 TITLE: Aminonucleosides and their derivatives. XI.
 Synthesis of 3'-amino-2', 3'-dideoxynucleoside
 5'-triphosphates
 AUTHOR(S): Zaitseva, V. E.; Dyatkina, N. B.; Kraevskii, A. A.;
 Skaptsova, N. V.; Turina, O. V.; Gnuchev, N. V.;
 Gottikh, B. P.; Azhaev, A. V.
 CORPORATE SOURCE: Inst. Mol. Biol., Moscow, USSR
 SOURCE: Bioorganicheskaya Khimiya (1984), 10(5), 670-80
 CODEN: BIKHD7; ISSN: 0132-3423
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian
 GI



AB 3'-Azido-2',3'-dideoxynucleosides I (B = thymine, adenine, guanine) were
 prepared by modifications of conventional methods. I (B = cytosine, uracil)
 were prepared from 2'-deoxycytidine and 2'-deoxyuridine, resp., via ring
 opening of 3',02-anhydro derivs., e.g. II, with LiN₃. I were converted to
 their 5'-monophosphates and triphosphates and the latter were reduced to
 the corresponding 3'-amino-2,3-dideoxynucleoside 5'-triphosphates which
 are effective inhibitors of DNA synthesis catalyzed by DNA polymerases (no
 data).
 IT 15981-92-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

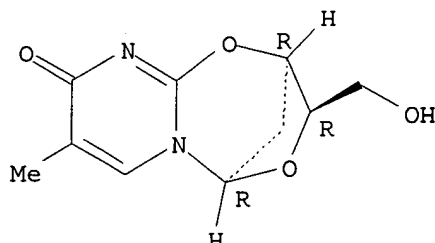
(Reactant or reagent)

(preparation, azidation, and ring cleavage of)

RN 15981-92-7 CAPLUS

CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,
2,3-dihydro-3-(hydroxymethyl)-8-methyl-, (2R,3R,5R)- (9CI) (CA INDEX
NAME)

Absolute stereochemistry.



L13 ANSWER 57 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1978:475431 CAPLUS

DOCUMENT NUMBER: 89:75431

TITLE: Synthesis of 3'-azido-2',3'-
dideoxyribofuranosylpurines

AUTHOR(S): Imazawa, M.; Eckstein, F.

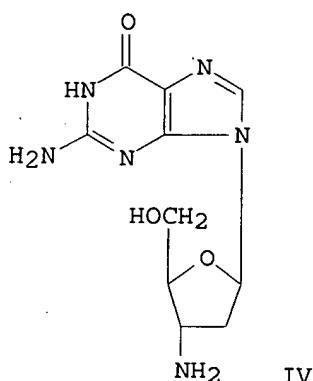
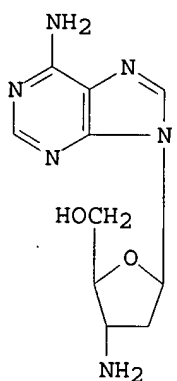
CORPORATE SOURCE: Abt. Chem., Max-Planck-Inst. Exp. Med., Goettingen,
Fed. Rep. Ger.

SOURCE: Journal of Organic Chemistry (1978), 43(15), 3044-8
CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal

LANGUAGE: English

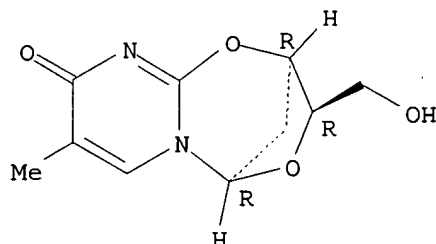
GI



AB Transglycosylation of 3'-azido-3'-deoxy-5'-O-acetylthymidine, which is readily available from thymidine, with silylated N6-octanoyladenine using CF3SO3SiMe3 as a catalyst gave a mixture of α and β (I) anomers of 3'-azido-2',3'-dideoxyadenosine, which is separable on a silica gel column. Replacement of silylated N6-octanoyladenine by silylated N2-palmitoylguanine gave a mixture from which α and β (II) anomers of 9-(3-azido-2,3-dideoxy-D-ribofuranosyl)guanine was isolated. The N-7 isomers also are obtained, but could not be separated. Treatment of I and II with Ph3P and subsequent hydrolysis gave aminodideoxy nucleosides III and IV. A further simplification of this transglycosylation and its applicability to preparation of ribonucleosides are demonstrated.

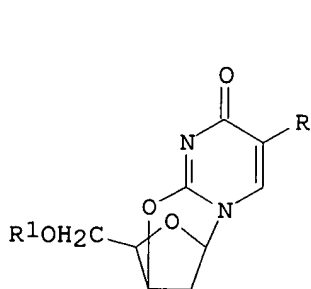
IT 15981-92-7
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (azidolysis of)
 RN 15981-92-7 CAPLUS
 CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,
 2,3-dihydro-3-(hydroxymethyl)-8-methyl-, (2R,3R,5R)- (9CI) (CA INDEX
 NAME)

Absolute stereochemistry.

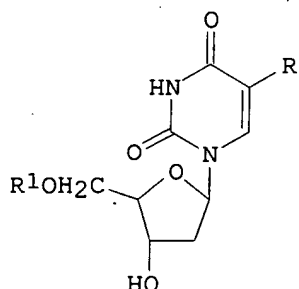


L13 ANSWER 58 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1978:121666 CAPLUS
 DOCUMENT NUMBER: 88:121666
 TITLE: 02,3'-Cyclopyrimidine nucleosides
 INVENTOR(S): Shibuya, Susumu; Kuninaka, Akira; Yoshino, Hiroshi
 PATENT ASSIGNEE(S): Yamasa Shoyu Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 52122398	A2	19771014	JP 1976-37216	19760405
JP 59014040	B4	19840402		
PRIORITY APPLN. INFO.: GI			JP 1976-37216	A 19760405



I



II

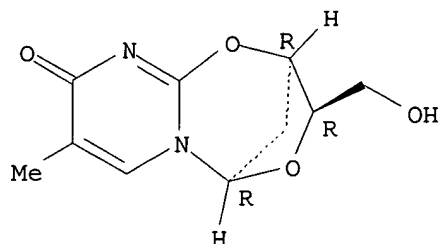
AB Title compds. I (R, R1 = H, H; Me, H; F, H) were prepared by treatment of II with Ph3P or Bu3P and EtO2CN:NCO2Et (III) or PhO2CN:NCO2Ph. Thus, 3 mL III in THF was added to a mixture of 2 g II (R = R1 = H) and 4.6 g Ph3P in THF over 10 min and the whole stirred 4 h at room temperature, 2 mL H2O added, and the whole heated 20 min at 100° to give 70% I (R = R1 = H).

IT 15981-92-7P
 RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN 15981-92-7 CAPLUS
CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,
2,3-dihydro-3-(hydroxymethyl)-8-methyl-, (2R,3R,5R)- (9CI) (CA INDEX
NAME)

Absolute stereochemistry.



L13 ANSWER 59 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1974:15137 CAPLUS

DOCUMENT NUMBER: 80:15137

TITLE: Nucleotide synthesis. IV. Phosphorylated
3'-amino-3'-deoxythymidine and 5'-amino-5'-
deoxythymidine and derivatives

AUTHOR(S): Glinski, Ronald P.; Khan, M. Sami; Kalamas, Richard
L.; Sporn, Michael B.

CORPORATE SOURCE: Ash Stevens Inc., Detroit, MI, USA

SOURCE: Journal of Organic Chemistry (1973), 38(25), 4299-305
CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal

LANGUAGE: English

AB 3'-Amino-3'-deoxythymidine 5'-phosphate (I) and 5'-amino-5'-deoxythymidine
3'-phosphate (II) were prepared. I and II were prepared via
3'-azido-3'-deoxythymidine (III) and 5'-azido-5'-deoxythymidine (IV)
obtained by different multistep pathways. Phosphorylation of III and IV,
followed by removal of the protecting groups, gave nucleotides, which
contained azide groups in the 3' and 5' positions, resp. Catalytic reduction
of the azide groups gave I and II in good yield. I and II formed crystalline
inner salts, which facilitated purification and characterization. In
addition, I

was converted into 3'-chloroacetamido-, 3'-N-(O-ethylcarbamoyl)-, and
3'-heptafluorobutyramido-3'-deoxythymidine 5'-phosphates and II was
converted into 5'-acetamido-, 5'-chloroacetamido-, and
5'-N-(O-ethylcarbamoyl)-5'-deoxythymidine 3'-phosphates; these derivs.
were candidate active-site-directed inhibitors of a nuclear
exoribonuclease isolated from nuclei of mammalian cells.

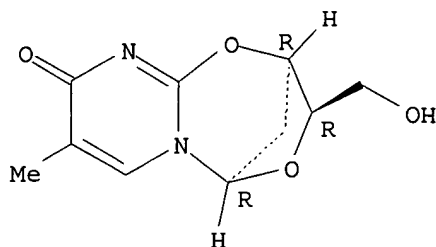
IT 15981-92-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 15981-92-7 CAPLUS

CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,
2,3-dihydro-3-(hydroxymethyl)-8-methyl-, (2R,3R,5R)- (9CI) (CA INDEX
NAME)

Absolute stereochemistry.



L13 ANSWER 60 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1971:530085 CAPLUS
 DOCUMENT NUMBER: 75:130085
 TITLE: 2'-Deoxy-02,3'-cyclonucleosides
 INVENTOR(S): Kowollik, Gotthard; Gaertner, Klaus; Langen, Peter
 SOURCE: Ger. (East), 4 pp.
 CODEN: GEXXA8
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DD 77233		19701020	DD	19690602

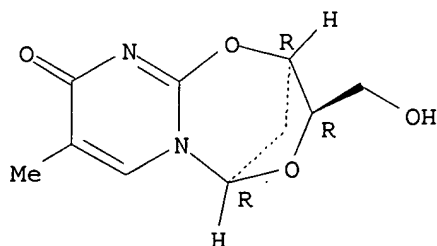
AB Heating 1 mmole of a nucleoside (I) in 2.5 mmole Me₂CO with 2-4 mmole Et₂NCF₂CHFCI (II) 10-30 min at 40-80°, cooling, addition of CaCO₃, concentration in vacuo at 70° and treatment with H₂O (CO₂ evolved) gave a crude 02,3'-cyclonucleoside (III). Data for various III (I, mmole II, reaction time, and III yield given): 2'-deoxyuridine, 4, 5 min, 71%; 2'-deoxy-5-fluorouridine, 4, 30 min, 48%; thymidine, 2, 30 min, 76%; 5'-deoxy-5-chlorothymidine, 2, 30 min, 87%; 5'-O-tosylthymidine, 2, 30 min, 100%. Other aprotic solvents, e.g., DMF, may be used.

IT 15981-92-7P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

RN 15981-92-7 CAPLUS

CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,
 2,3-dihydro-3-(hydroxymethyl)-8-methyl-, (2R,3R,5R)- (9CI) (CA INDEX NAME)

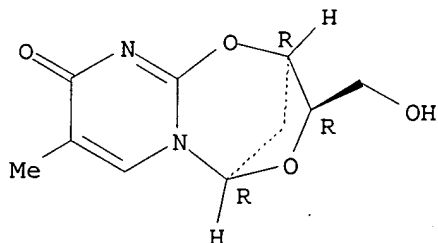
Absolute stereochemistry.



L13 ANSWER 61 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1971:477193 CAPLUS
 DOCUMENT NUMBER: 75:77193
 TITLE: Nucleosides of fluoro sugars. VI. Synthesis and reactivity of 3'-fluoro- and 3'-chloro-3'-deoxythymidine

AUTHOR(S): Etzold, G.; Hintsche, R.; Kowollik, G.; Langen, P.
 CORPORATE SOURCE: Inst. Biochem., Dtsch. Akad. Wiss. Berlin,
 Berlin-Buch, Ger. Dem. Rep.
 SOURCE: Tetrahedron (1971), 27(12), 2463-72
 CODEN: TETRAB; ISSN: 0040-4020
 DOCUMENT TYPE: Journal
 LANGUAGE: German
 GI For diagram(s), see printed CA Issue.
 AB 2,3'-Anhydro-1-(2-deoxy- β -D-threo-pentofuranosyl)thymine (I) reacts
 with HF or HCl to give cytostatic 3'-fluoro- or 3'-chloro-3-deoxythymidine
 (II or III). The formation of II is catalyzed by AlF₃.
 3'-O-Mesylthymidine reacts with fluorides to form I and in part finally
 II, but not 1-(2,3-dideoxy-3-fluoro- β -D-xylofuranosyl)thymine. The
 configuration at C-3' of II and III is established by recyclization to I.
 In alkaline medium, II and III are easily converted into 2',3'-didehydro-3'-
 deoxythymidine. II and III show a pos. Cotton effect at 270 nm. The acid
 resistance increases in the order 1-(2-deoxy- β -D-
 xylofuranosyl)thymine, thymidine, II and III.
 IT 15981-92-7P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 15981-92-7 CAPLUS
 CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,
 2,3-dihydro-3-(hydroxymethyl)-8-methyl-, (2R,3R,5R)- (9CI) (CA INDEX
 NAME)

Absolute stereochemistry.



L13 ANSWER 62 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1970:79401 CAPLUS
 DOCUMENT NUMBER: 72:79401
 TITLE: Synthesis of some nucleotides derived from
 3'-deoxythymidine
 AUTHOR(S): Russell, Alan F.; Moffatt, J. G.
 CORPORATE SOURCE: Inst. of Mol. Biol., Palo Alto, CA, USA
 SOURCE: Biochemistry (1969), 8(12), 4889-96
 CODEN: BICHAW; ISSN: 0006-2960
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Phosphorylation of 3'-deoxy-3'-iodothymidine gives the corresponding
 3'-deoxy-3'-iodothymidine 5'-phosphate in high yield. Activation of the
 phosphate group can be achieved by formation of the phosphoromorpholidate
 under anhydrous conditions, and subsequent condensation with
 tributylammonium pyrophosphate in anhydrous dimethyl sulfoxide gives
 3'-deoxy-3'-iodothymidine 5'-triphosphate in modest yield. The latter
 reaction is complicated by simultaneous dehydrohalogenation giving the
 related 2',3'-unsatd. nucleoside 5'-triphosphate and by extensive
 intramol. displacement of iodide ion by phosphate giving a 3',5'-cyclic
 phosphate with the 2-deoxy- β -D-threo-pentofuranosyl configuration.
 The same spectrum of products is obtained using 3'-deoxy-3'-iodothymidine
 5'-phosphoroimid-azolate prepared from the parent nucleoside and

triimidazolephosphine oxide. The various products are characterized by enzymic and spectroscopic techniques, and reduction of either the iodotriphosphate or the unsatd. triphosphate with H and Pd gives 3'-deoxythymidine 5'-triphosphate. Phosphorylation of 1-(2-deoxy- β -D-threo-pentofuranosyl)thymine with diphenyl phosphorochloridate gives the crystalline 5'-diphenyl phosphate ester that can be converted with base into the same 3',5'-cyclic phosphate obtained as a by-product during preparation of the triphosphates above. A pair of 3',5'-cyclic phosphate triester diastereoisomeric about their phosphorus atoms are intermediates in this cyclization reaction.

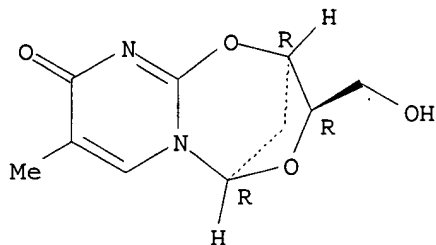
IT 15981-92-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 15981-92-7 CAPLUS

CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,
2,3-dihydro-3-(hydroxymethyl)-8-methyl-, (2R,3R,5R)- (9CI) (CA INDEX
NAME)

Absolute stereochemistry.



L13 ANSWER 63 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1970:67221 CAPLUS

DOCUMENT NUMBER: 72:67221

TITLE: Direct preparation of 02,3'-cyclo-2'-deoxynucleosides

AUTHOR(S): Kowollik, Gotthard; Gaertner, K.; Langen, Peter

CORPORATE SOURCE: Deut. Akad. Wiss. Berlin, Berlin-Buch, Fed. Rep. Ger.

SOURCE: Tetrahedron Letters (1969), (44), 3863-5

CODEN: TELEAY; ISSN: 0040-4039

DOCUMENT TYPE: Journal

LANGUAGE: German

AB Thymidine, 2'-deoxyuridine, or 5-fluoro-2'-deoxyuridine heated with 2-4 molar equivs. ClCH₂CF₂NEt₂ (I) in Me₂CO or HCONMe₂ briefly at 50-70° and the product crystallized from aqueous alc. yielded the corresponding 02,3'-cyclo-2'-deoxy nucleosides, m. 241-3°, 201-5°, and 197-9° in 75, 71, and 48% yields, resp. Cyclization of 2'-deoxycytidine was similarly carried out but the product decomposed on column chromatographic separation procedures. Similar cyclization

of 5'-deoxy-5'-chlorothymidine and 5'-O-tosylthymidine yielded the corresponding 02,3'-cyclonucleoside, m. 179.5-81.0°, 173-80° (decomposition) in 87 and 100% yields. No reaction was observed with uridine.

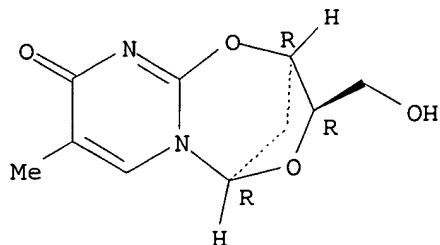
IT 15981-92-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 15981-92-7 CAPLUS

CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,
2,3-dihydro-3-(hydroxymethyl)-8-methyl-, (2R,3R,5R)- (9CI) (CA INDEX
NAME)

Absolute stereochemistry.



L13 ANSWER 64 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1968:105488 CAPLUS

DOCUMENT NUMBER: 68:105488

TITLE: Nucleosides. L. Synthesis of 2,3'-imino-1-(2-deoxy-beta-D-threo-pentofuranosyl)thymine and related derivatives

AUTHOR(S): Doerr, Iris L.; Cushley, Robert J.; Fox, Jack J.

CORPORATE SOURCE: Div. of Cornell Univ. Med. Coll., Sloan-Kettering Inst. for Cancer Res., New York, NY, USA

SOURCE: Journal of Organic Chemistry (1968), 33(4), 1592-9
CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 68:105488

GI For diagram(s), see printed CA Issue.

AB Reaction of 5'-deoxy-5'-iodo-3'-O-methylsulfonylthymidine with AgOAc in MeOH afforded the 2,5'-anhydro derivative of 3'-O-methylsulfonylthymidine (I) in good yield which, by treatment with liquid NH₃ gave 2,3'-imino-1-(2-deoxy-beta-D-threo-pentofuranosyl)thymine (II). II was also prepared from the 2-O-Me derivative (III). Reaction of I with MeNH₂, HONH₂, and H₂NNH₂ yielded the corresponding cyclic N-methyl, N-hydroxy, and N-amino derivs. In the above reactions of I or III with amines the 2,3'-imino derivs. formed via an isocytosine intermediate. The reactions and ultraviolet, pKa, and N.M.R. data of the 2,3'-imino derivs. are reported and discussed. 29 references.

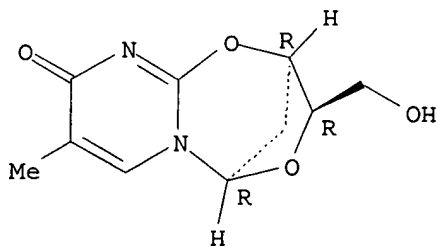
IT 15981-92-7

RL: PRP (Properties)
(nuclear magnetic resonance of)

RN 15981-92-7 CAPLUS

CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,
2,3-dihydro-3-(hydroxymethyl)-8-methyl-, (2R,3R,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



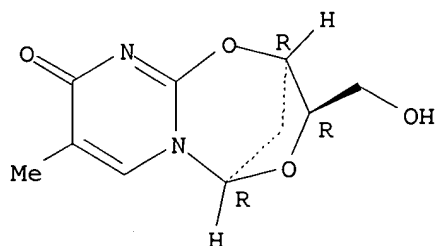
L13 ANSWER 65 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1963:66738 CAPLUS

DOCUMENT NUMBER: 58:66738

ORIGINAL REFERENCE NO.: 58:11457a-c
 TITLE: Pyrimidine nucleosides. XVI. Further studies of anhydro-nucleosides
 AUTHOR(S): Fox, Jack J.; Miller, Naishun C.
 CORPORATE SOURCE: Cornell Univ. Med. Coll., New York, NY
 SOURCE: Journal of Organic Chemistry (1963), 28, 936-41
 CODEN: JOCEAH; ISSN: 0022-3263
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable
 OTHER SOURCE(S): CASREACT 58:66738
 GI For diagram(s), see printed CA Issue.
 AB cf. CA 57, 4748d. Syntheses are described for the preparation of the 2'-deoxy-D-threo-pentofuranosyl isomers (I, R = Me and F, resp.) of thymidine and 5-fluoro-2'-deoxyuridine via 2,3'-anhydro-nucleoside intermediates. The conversions of 3'-O-mesylthymidines with sodium benzoate in HCONMe₂ are conclusively shown to proceed through 2,3'-anhydronucleoside intermediates under acid-catalyzed conditions. The reaction of certain anhydro-1- (β-D-pentofuranosyl)uracils with sodium benzoate in HCONMe₂ has been studied and the role of acid catalysis as a factor in the introduction of nucleophiles into the sugar moiety of 2,2'- or 2,3'-anhydronucleosides is considered. In preliminary screening studies with mice, 1-(2-deoxy-β-D-threo-pentofuranosyl)-5-fluorouracil (I, R = F) (II) was effective against leukemia B82T and B82A but II showed no chemotherapeutic effect against leukemia L1210 or Ehrlich ascites tumor.
 IT 15981-92-7P, 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one, 2,3-dihydro-3-(hydroxymethyl)-8-methyl-
 RL: PREP (Preparation)
 (preparation of)
 RN 15981-92-7 CAPLUS
 CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one, 2,3-dihydro-3-(hydroxymethyl)-8-methyl-, (2R,3R,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L13 ANSWER 66 OF 66 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1963:66737 CAPLUS
 DOCUMENT NUMBER: 58:66737
 ORIGINAL REFERENCE NO.: 58:11456g-h,11457a
 TITLE: Purine nucleosides. IV. The synthesis of 6-halogenated 9-β-D-ribofuranosylpurines from inosine and guanosine
 AUTHOR(S): Gerster, John F.; Jones, Jesse W.; Robins, Roland K.
 CORPORATE SOURCE: Arizona State Univ., Tempe
 SOURCE: Journal of Organic Chemistry (1963), 28, 945-8
 CODEN: JOCEAH; ISSN: 0022-3263
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable
 OTHER SOURCE(S): CASREACT 58:66737
 GI For diagram(s), see printed CA Issue.

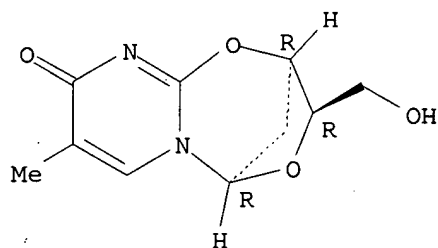
AB cf. CA 58, 6915h. The present work is a study of the introduction of various halogens into purine ribosides at position 6. Under carefully controlled conditions the sugar moiety may be retained. These compounds provide many new and useful synthetic purine nucleoside intermediates which are now readily available from natural sources. For example, I (X = H) was obtained from inosine and I (X = H₂N) from guanosine.

IT 15981-92-7P, 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one, 2,3-dihydro-3-(hydroxymethyl)-8-methyl-
 RL: PREP (Preparation)
 (preparation of)

RN 15981-92-7 CAPLUS

CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,
 2,3-dihydro-3-(hydroxymethyl)-8-methyl-, (2R,3R,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> d his

(FILE 'HOME' ENTERED AT 11:10:24 ON 01 DEC 2006)

FILE 'EPFULL, FRFULL, GBFULL, PATDPAFULL, PCTFULL, RDISCLOSURE,
USPATFULL, USPAT2' ENTERED AT 11:10:49 ON 01 DEC 2006

E MEDRONIC MINIMED/PA
E MEDTRONIC MINIMED/PA

L1 458 S E4-E8
L2 4 S L1 AND THYMIDINE
E WALSH JOSEPH/IN
L3 103 S E3-8
L4 8 S L3 AND THYMIDINE

FILE 'CAPLUS' ENTERED AT 11:18:06 ON 01 DEC 2006

L5 1 S WO 2005058246/PN
SELECT L5 1 RN
L6 8517 S E1-E6

FILE 'REGISTRY' ENTERED AT 11:19:14 ON 01 DEC 2006

L7 1 S 15981-92-7/RN
SET NOTICE 1 DISPLAY
SET NOTICE LOGIN DISPLAY

FILE 'REGISTRY' ENTERED AT 11:20:50 ON 01 DEC 2006

L8 1 S 191474-13-2/RN
SET NOTICE 1 DISPLAY
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FILE 'REGISTRY' ENTERED AT 11:21:27 ON 01 DEC 2006

L9 1 S 287114-80-1/RN
SET NOTICE 1 DISPLAY
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L10 1 S 50-89-5/RN
SET NOTICE 1 DISPLAY
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L11 1 S 852689-54-4/RN
SET NOTICE 1 DISPLAY
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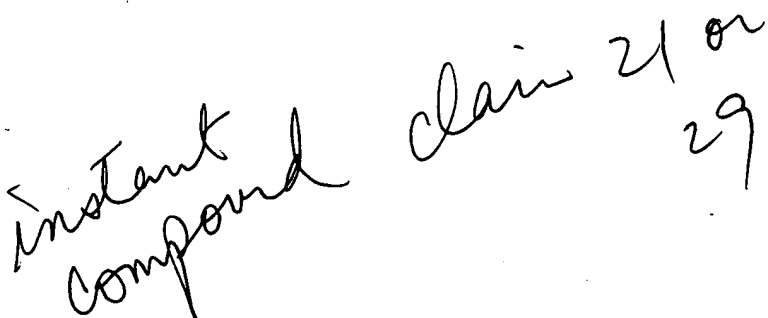
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L13 66 S L7 OR L8

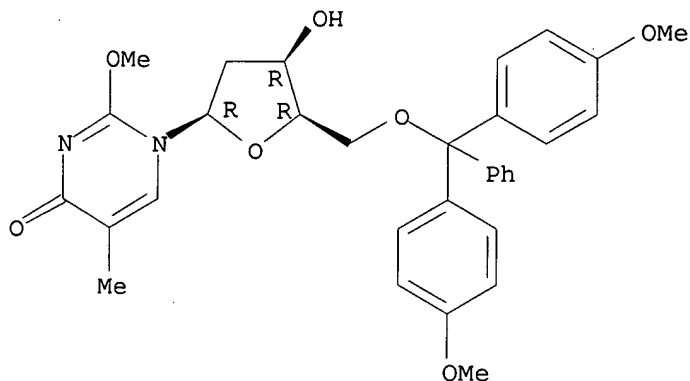
Absolute stereochemistry.



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2006 ACS on STN
RN 852689-54-4 REGISTRY
CN 4(1H)-Pyrimidinone, 1-[5-O-[bis(4-methoxyphenyl)phenylmethyl]-2-deoxy-
β-D-threo-pentofuranosyl]-2-methoxy-5-methyl- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C32 H34 N2 O7
SR CA
LC STN Files: CA, CAPLUS, CASREACT, USPATFULL
DT.CA Caplus document type: Patent
RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)

Absolute stereochemistry.



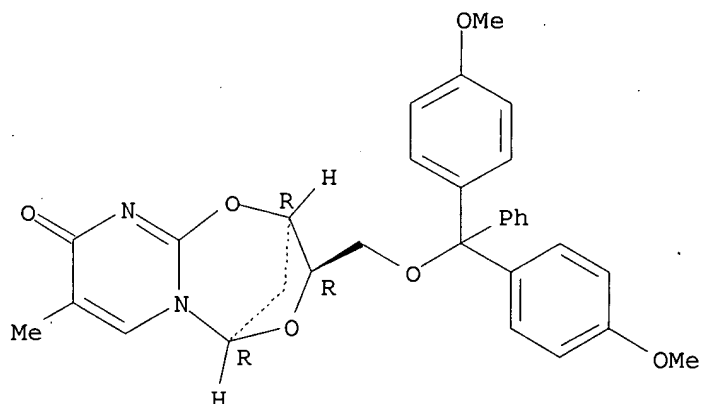
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

claim

L8 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2006 ACS on STN
 RN 191474-13-2 REGISTRY
 CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,
 3-[[bis(4-methoxyphenyl)phenylmethoxy]methyl]-2,3-dihydro-8-methyl-,
 (2R,3R,5R)-(9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,
 3-[[bis(4-methoxyphenyl)phenylmethoxy]methyl]-2,3-dihydro-8-methyl-,
 [2R-(2 α ,3 β ,5 α)]-
 FS STEREOSEARCH
 MF C31 H30 N2 O6
 SR CA
 LC STN Files: CA, CAPLUS, CASREACT, USPATFULL
 DT.CA Caplus document type: Journal; Patent
 RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)
 RL.NP Roles from non-patents: PREP (Preparation); RACT (Reactant or reagent)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

10 REFERENCES IN FILE CA (1907 TO DATE)
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=> S 15981-92-7/RN

L7 1 15981-92-7/RN

=> SET NOTICE 1 DISPLAY

NOTICE SET TO 1 U.S. DOLLAR FOR DISPLAY COMMAND
SET COMMAND COMPLETED

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YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y
THE ESTIMATED COST FOR THIS REQUEST IS 6.36 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L7 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2006 ACS on STN
RN 15981-92-7 REGISTRY
CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,
2,3-dihydro-3-(hydroxymethyl)-8-methyl-, (2R,3R,5R)- (9CI) (CA INDEX
NAME)

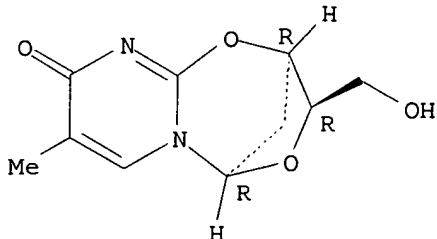
OTHER CA INDEX NAMES:

CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,
2,3-dihydro-3-(hydroxymethyl)-8-methyl- (7CI)
CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,
2,3-dihydro-3-(hydroxymethyl)-8-methyl-, stereoisomer (8CI)
CN 2,5-Methano-5H,9H-pyrimido[2,1-b][1,5,3]dioxazepin-9-one,
2,3-dihydro-3-(hydroxymethyl)-8-methyl-, [2R-(2 α ,3 β ,5 α)]-

OTHER NAMES:

CN 2,3'-Anhydro-1-(2'-deoxy- β -D-threo-pentofuranosyl)thymine
CN 2,3'-O-Cyclothymidine
CN NSC 144601
CN 02,3'-Cyclothymidine
FS STEREOSEARCH
DR 471257-57-5, 133000-27-8, 148665-51-4
MF C10 H12 N2 O4
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS,
CHEMINFORMRX, CSCHEM, PS, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)
DT.CA Caplus document type: Journal; Patent
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); RACT
(Reactant or reagent); USES (Uses)
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological
study); PREP (Preparation); RACT (Reactant or reagent)
RL.NP Roles from non-patents: BIOL (Biological study); PREP (Preparation);
PROC (Process); PRP (Properties); RACT (Reactant or reagent)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

58 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
58 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> s 13 and THYMIDINE
L4 8 L3 AND THYMIDINE

=> d ibib 1-8

L4 ANSWER 1 OF 8 EPFULL COPYRIGHT 2006 EPO/FIZ KA on STN

ACCESSION NUMBER: 2004:140333 EPFULL
ENTRY DATE PATENT: 20050824
ENTRY DATE PUBLICATION: 20050824
UPDATE DATE PUBLICAT.: 20050824
DATA UPDATE DATE: 20050824
DATA UPDATE WEEK: 200534
TITLE (ENGLISH): METHOD FOR PREPARING RADIOLABELED THYMIDINE
HAVING LOW CHROMOPHORIC BYPRODUCTS
TITLE (FRENCH): PROCEDE DE PREPARATION DE THYMIDINE
RADIOMARQUEE POSSEDANT DE FAIBLES QUANTITES DE
SOUS-PRODUITS CHROMOPHORES
INVENTOR(S): WALSH, Joseph C., CTI Molecular Technologies,
Inc., 6140 Bristol Parkway, Culver City, CA 90230,
US; PADGETT, Henry C., CTI Molecular Technologies,
Inc, 6140 Bristol Parkway, Culver City, CA 90230, US;
YSAGUIRRE, Tanea, CTI Molecular Technologies, Inc.,
6140 Bristol Parkway, Culver City, CA 90230, US
PATENT APPLICANT(S): Molecular Technologies, Inc., 810 Innovation Drive,
Knoxville, TN 37932, US
PATENT APPL. NUMBER: 7036830
DOCUMENT TYPE: Patent
LANGUAGE OF FILING: English
LANGUAGE OF PUBL.: English
LANGUAGE OF PROCEDURE: English
LANGUAGE OF TITLE: English; French
PATENT INFO TYPE: WOA2 International application published without search
report

PATENT INFORMATION:

	NUMBER	KIND	DATE
	WO 2005058247	A2	20050630
DESIGNATED STATES:	AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR		
EXTENSION STATES:	AL BA HR LV MK YU		
APPLICATION INFO.:	EP 2004-817034	A	20041215
	WO 2004-US41955	A	20041215
PRIORITY INFO.:	US 2003-736087	A	20031215

L4 ANSWER 2 OF 8 EPFULL COPYRIGHT 2006 EPO/FIZ KA on STN

ACCESSION NUMBER: 2004:140332 EPFULL
ENTRY DATE PATENT: 20050824
ENTRY DATE PUBLICATION: 20050824
UPDATE DATE PUBLICAT.: 20050824
DATA UPDATE DATE: 20050824
DATA UPDATE WEEK: 200534
TITLE (ENGLISH): METHOD FOR PREPARING RADIOLABELED THYMIDINE
TITLE (FRENCH): PROCEDE DE PREPARATION DE THYMIDINE
RADIOMARQUEE
INVENTOR(S): WALSH, Joseph C., CTI Molecular Technologies Inc.,
6140 Bristol Parkway, Culver City, CA 90230, US;
PADGETT, Henry C., CTI Molecular Technologies Inc.,
6140 Bristol Parkway, Culver City, CA 90230, US
PATENT APPLICANT(S): Molecular Technologies, Inc., 810 Innovation Drive,
Knoxville, TN 37932, US
PATENT APPL. NUMBER: 7036830

DOCUMENT TYPE: Patent
LANGUAGE OF FILING: English
LANGUAGE OF PUBL.: English
LANGUAGE OF PROCEDURE: English
LANGUAGE OF TITLE: English; French
PATENT INFO TYPE: WOA2 International application published without search report

PATENT INFORMATION:

	NUMBER	KIND	DATE
	WO 2005058246	A2	20050630
DESIGNATED STATES:	AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR		
EXTENSION STATES:	AL BA HR LV MK YU		
APPLICATION INFO.:	EP 2004-817033	A	20041215
	WO 2004-US41954	A	20041215
PRIORITY INFO.:	US 2003-736084	A	20031215

L4 ANSWER 3 OF 8 PCTFULL COPYRIGHT 2006 Univentio on STN
ACCESSION NUMBER: 2006116629 PCTFULL ED 20061107 EW 200644
TITLE (ENGLISH): CLICK CHEMISTRY METHOD FOR SYNTHESIZING MOLECULAR
IMAGING PROBES
TITLE (FRENCH): PROCEDE DE CHIMIE A HAUTE AFFINITE POUR LA SYNTHESE DE
SONDES D'IMAGERIE MOLECULAIRE
INVENTOR(S): WALSH, Joseph, C., 831 Galloway Street, Pacific
Palisades, California 90272, US;
KOLB, Hartmuth, C., 6413 Pacific Ave., Playa Del Rey,
CA 90293, US;
CHEN, Kai, 2850 S. Sepulveda Blvd., Apt. 11, Los
Angeles, CA 90064, US
PATENT ASSIGNEE(S): SIEMENS MEDICAL SOLUTIONS USA, INC., 51 Valley Stream
Parkway, Malvern, Pennsylvania 19355-1406, US
AGENT: DOUGLASS, John, Kirkland, Jr.\$, SIEMENS CORPORATION,
INTELLECTUAL PROPERTY DEPARTMENT, 170 Wood Avenue
South, Iselin, New Jersey 088; 08830\$, US
LANGUAGE OF FILING: English
LANGUAGE OF PUBL.: English
DOCUMENT TYPE: Patent
PATENT INFORMATION:

	NUMBER	KIND	DATE
	WO 2006116629	A2	20061102
DESIGNATED STATES			
W:	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KN KP KR KZ LC LK LR LS LT LU LV LY MA MD MG MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW		
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RW (EAPO):	AM AZ BY KG KZ MD RU TJ TM		
RW (EPO):	AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LT LU LV MC NL PL PT RO SE SI SK TR		
RW (OAPI):	BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG		
APPLICATION INFO.:	WO 2006-US16088	A	20060427
PRIORITY INFO.:	US 2005-60675267		20050427

L4 ANSWER 4 OF 8 PCTFULL COPYRIGHT 2006 Univentio on STN
ACCESSION NUMBER: 2005058247 PCTFULL ED 20050706 EW 200526
TITLE (ENGLISH): METHOD FOR PREPARING RADIOLABELED THYMIDINE
HAVING LOW CHROMOPHORIC BYPRODUCTS
TITLE (FRENCH): PROCEDE DE PREPARATION DE THYMIDINE
RADIOMARQUEE POSSEDANT DE FAIBLES QUANTITES DE

INVENTOR(S): SOUS-PRODUITS CHROMOPHORES
 WALSH, Joseph C., CTI Molecular Technologies,
 Inc., 6140 Bristol Parkway, Culver City, CA 90230,
 US;
 PADGETT, Henry C., CTI Molecular Technologies, Inc.,
 6140 Bristol Parkway, Culver City, CA 90230, US;
 YSAGUIRRE, Tanea, CTI Molecular Technologies, Inc.,
 6140 Bristol Parkway, Culver City, CA 90230, US
 PATENT ASSIGNEE(S): MOLECULAR TECHNOLOGIES, INC., 810 Innovation Drive,
 Knoxville, TN 37932, US [US, US], for all designates
 States except US
 AGENT: FITCH, Morgan L.\$, Pitts & Brittian, P.C, P.O. Box
 51295, Knoxville, TN 37950-1295\$, US
 LANGUAGE OF FILING: English
 LANGUAGE OF PUBL.: English
 DOCUMENT TYPE: Patent
 PATENT INFORMATION:

NUMBER	KIND	DATE
WO 2005058247	A2	20050630

DESIGNATED STATES

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 RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ
 VC VN YU ZA ZM ZW

RW (ARIPO):

BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW

RW (EAPO):

AM AZ BY KG KZ MD RU TJ TM

RW (EPO):

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT
 LT LU MC NL PL PT RO SE SI SK TR

RW (OAPI):

BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

APPLICATION INFO.:

WO 2004-US41955 A 20041215

PRIORITY INFO.:

US 2003-10/736,087 20031215

L4 ANSWER 5 OF 8

ACCESSION NUMBER:

PCTFULL COPYRIGHT 2006 Univentio on STN

TITLE (ENGLISH):

2005058246 PCTFULL ED 20050706 EW 200526

TITLE (FRENCH):

METHOD FOR PREPARING RADIOLABELED THYMIDINE

PROCEDE DE PREPARATION DE THYMIDINE

RADIOMARQUEE

INVENTOR(S):

WALSH, Joseph, C., CTI Molecular Technologies,
 Inc., 6140 Bristol Parkway, Culver City, CA 90230,
 US;
 PADGETT, Henry, C., CTI Molecular Technologies, Inc.,
 6140 Bristol Parkway, Culver City, CA 90230, US

PATENT ASSIGNEE(S):

MOLECULAR TECHNOLOGIES, INC., 810 Innovation Drive,
 Knoxville, TN 37932, US [US, US], for all designates
 States except US

AGENT:

FITCH, Morgan, L.\$, Pitts & Brittian, P.C., P.O. Box
 51295, Knoxville, TN 37950-1295\$, US

LANGUAGE OF FILING:

English

LANGUAGE OF PUBL.:

English

DOCUMENT TYPE:

Patent

PATENT INFORMATION:

NUMBER	KIND	DATE
WO 2005058246	A2	20050630

DESIGNATED STATES

W:

AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO
 CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR
 HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV
 MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO
 RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ

VC VN YU ZA ZM ZW
 RW (ARIPO): BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW
 RW (EAPO): AM AZ BY KG KZ MD RU TJ TM
 RW (EPO): AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT
 LT LU MC NL PL PT RO SE SI SK TR
 RW (OAPI): BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
 APPLICATION INFO.: WO 2004-US41954 A 20041215
 PRIORITY INFO.: US 2003-10/736,084 20031215

L4 ANSWER 6 OF 8 USPATFULL on STN

ACCESSION NUMBER: 2006:307682 USPATFULL
 TITLE: Click chemistry method for synthesizing molecular
 imaging probes
 INVENTOR(S): Kolb, Hartmuth, Playa Del Rey, CA, UNITED STATES
 Walsh, Joseph C., Pacific Palisades, CA,
 UNITED STATES
 Chen, Kai, Los Angeles, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2006263293	A1	20061123
APPLICATION INFO.:	US 2006-413596	A1	20060427 (11)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2005-675267P	20050427 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	SIEMENS CORPORATION, INTELLECTUAL PROPERTY DEPARTMENT, 170 WOOD AVENUE SOUTH, ISELIN, NJ, 08830, US	
NUMBER OF CLAIMS:	47	
EXEMPLARY CLAIM:	1	
LINE COUNT:	1633	

L4 ANSWER 7 OF 8 USPATFULL on STN

ACCESSION NUMBER: 2005:152310 USPATFULL
 TITLE: Method for preparing radiolabeled thymidine
 INVENTOR(S): Walsh, Joseph C., Pacific Palisades, CA,
 UNITED STATES
 Padgett, Henry C., Hermosa Beach, CA, UNITED STATES
 PATENT ASSIGNEE(S): CTI PET Systems, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005131224	A1	20050616
APPLICATION INFO.:	US 2003-736084	A1	20031215 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	PITTS AND BRITTIAN P C, P O BOX 51295, KNOXVILLE, TN, 37950-1295, US		
NUMBER OF CLAIMS:	34		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	3 Drawing Page(s)		
LINE COUNT:	554		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 8 OF 8 USPATFULL on STN

ACCESSION NUMBER: 2005:152309 USPATFULL
 TITLE: Method for preparing radiolabeled thymidine
 having low chromophoric byproducts
 INVENTOR(S): Walsh, Joseph C., Pacific Palisades, CA,
 UNITED STATES
 Padgett, Henry C., Hermosa Beach, CA, UNITED STATES

PATENT ASSIGNEE(S): Ysaguirre, Tanea, Los Angeles, CA, UNITED STATES
CTI PET Systems, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005131223	A1	20050616
APPLICATION INFO.:	US 2003-736087	A1	20031215 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	PITTS AND BRITTIAN P C, P O BOX 51295, KNOXVILLE, TN, 37950-1295, US		
NUMBER OF CLAIMS:	50		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	2 Drawing Page(s)		
LINE COUNT:	553		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.


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           6390 USINGEN, DE/PA
E2      1      MEDTRONIC MIDAS REX/PA
E3      2 --> MEDTRONIC MINIMED/PA
E4      350     MEDTRONIC MINIMED INC/PA
E5      1      MEDTRONIC MINIMED INC./PA
E6      85     MEDTRONIC MINIMED, INC./PA
E7      21     MEDTRONIC MINIMED, INC., NORTHRIDGE, CALIF., US/PA
E8      1      MEDTRONIC MINIMED, INC., WILMINGTON, DEL., US/PA
E9      29     MEDTRONIC PERCUSURGE INC/PA
E10     2      MEDTRONIC PERCUSURGE, INC./PA
E11     1      MEDTRONIC PERCUSURGE, INC., SUNNYVALE, CALIF., US/PA
E12     48     MEDTRONIC PHYSIO CONTROL CORP/PA
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           IDGE, CALIF., US"/PA OR "MEDTRONIC MINIMED, INC., WILMINGTON,
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L2      4 L1 AND THYMIDINE
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In a multifile environment, a format can only be used if it is valid
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REENTER DISPLAY FORMAT FOR ALL FILES (FILEDEFAULT):end
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L2      ANSWER 1 OF 4      PCTFULL    COPYRIGHT 2006 Univentio on STN
ACCESSION NUMBER:      2005039622 PCTFULL    ED 20050511    EW 200518
TITLE (ENGLISH):      MODULATION OF SOCS EXPRESSION IN THE THERAPEUTIC
                        REGIMENS
TITLE (FRENCH):      MODULATION DE L'EXPRESSION DE SOCS DANS DES SCHEMAS
                        POSOLOGIQUES THERAPEUTIQUES
INVENTOR(S):      VAN ANTWERP, William, P., 26833 Pinehurst Drive,
                        Valencia, CA 91355, US [US, US];
                        GULATI, Poonam, S., 5467 La Forest Drive, La Canada, CA
                        91011, US [US, US]
PATENT ASSIGNEE(S):      MEDTRONIC MINIMED, INC., 18000 Devonshire Street,
                        Northridge, CA 91325-1219, US [US, US], for all
                        designates States except US;
                        VAN ANTWERP, William, P., 26833 Pinehurst Drive,
                        Valencia, CA 91355, US [US, US], for US only;
                        GULATI, Poonam, S., 5467 La Forest Drive, La Canada, CA
                        91011, US [US, US], for US only
AGENT:      WOOD, William, J.$, Gates & Cooper LLP, Suite 1050,
                        6701 Center Drive West, Los Angeles, CA 90045$, US
LANGUAGE OF FILING:      English
LANGUAGE OF PUBL.:      English
DOCUMENT TYPE:      Patent
PATENT INFORMATION:
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NUMBER	KIND	DATE
WO 2005039622	A2	20050506

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DESIGNATED STATES
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AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO
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	MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO
	RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ
	VC VN YU ZA ZM ZW
RW (ARIPO):	BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW
RW (EAPO):	AM AZ BY KG KZ MD RU TJ TM
RW (EPO):	AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU
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RW (OAPI):	BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
APPLICATION INFO.:	WO 2004-US29170 A 20040908
PRIORITY INFO.:	US 2003-60/513,100 20031021

L2 ANSWER 2 OF 4 PCTFULL COPYRIGHT 2006 Univentio on STN
 ACCESSION NUMBER: 2003094958 PCTFULL ED 20031125 EW 200347
 TITLE (ENGLISH): IMMUNOPROTECTIVE METHODS FOR BETA CELL NEOGENESIS
 TITLE (FRENCH): PROCEDES D'IMMUNOPROTECTION DE LA NEOGENESE DE CELLULES BETA
 INVENTOR(S): VAN ANTWERP, William, P., 26833 Pinehurst Drive, Valencia, CA 91355, US
 PATENT ASSIGNEE(S): MEDTRONIC MINIMED, INC., 18000 Devonshire Street, Northridge, CA 91325-1219, US [US, US]
 AGENT: WOOD, William, J.\$, Gates & Cooper LLP, 6701 Center Drive West, Suite 1050, Los Angeles, CA 90045\$, US
 LANGUAGE OF FILING: English
 LANGUAGE OF PUBL.: English
 DOCUMENT TYPE: Patent
 PATENT INFORMATION:

	NUMBER	KIND	DATE
	WO 2003094958	A1	20031120
DESIGNATED STATES			
W:	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW		
RW (ARIPO):	GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW		
RW (EAPO):	AM AZ BY KG KZ MD RU TJ TM		
RW (EPO):	AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE SI SK TR		
RW (OAPI):	BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG		
APPLICATION INFO.:	WO 2003-US14402	A	20030509
PRIORITY INFO.:	US 2002-60/379,202		20020509

L2 ANSWER 3 OF 4 USPATFULL on STN
 ACCESSION NUMBER: 2005:98562 USPATFULL
 TITLE: Modulation of SOCS expression in therapeutic regimens
 INVENTOR(S): Van Antwerp, William P., Valencia, CA, UNITED STATES
 Gulati, Poonam S., La Canada, CA, UNITED STATES
 PATENT ASSIGNEE(S): Medtronic MiniMed, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005084477	A1	20050421
APPLICATION INFO.:	US 2004-936390	A1	20040908 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2003-513100P	20031021 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	GATES & COOPER LLP, HOWARD HUGHES CENTER, 6701 CENTER	

DRIVE WEST, SUITE 1050, LOS ANGELES, CA, 90045, US

NUMBER OF CLAIMS: 21
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 1 Drawing Page(s)
LINE COUNT: 1888
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 4 OF 4 USPATFULL on STN

ACCESSION NUMBER: 2003:300774 USPATFULL
TITLE: Immunoprotective methods for beta cell neogenesis
INVENTOR(S): Van Antwerp, William P., Valencia, CA, UNITED STATES
PATENT ASSIGNEE(S): Medtronic MiniMed, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003212000	A1	20031113
APPLICATION INFO.:	US 2003-434906	A1	20030509 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-379202P	20020509 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	GATES & COOPER LLP, HOWARD HUGHES CENTER, 6701 CENTER DRIVE WEST, SUITE 1050, LOS ANGELES, CA, 90045	
NUMBER OF CLAIMS:	31	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	1 Drawing Page(s)	
LINE COUNT:	1834	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		